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	NRM2004157714
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.53926 Longitude -103.59739
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Severus Tank Battery	Site Type Tank Battery
Date Release Discovered 1-25-20	API# *(if applicable)* 30-025-46374 (Severus 31 5 Fed Com #005H)

Unit Letter	Section	Township	Range	County
O	30	20S	34E	Lea

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) 42.16	Volume Recovered (bbls) 40
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: A 4" Victaulic tee tying the divert lines together between the pipeline lact, truck lact, and tanks split open on the side due to thermal expansion. The recoil from the tee splitting caused a 4" Victaulic L to break off in the grooves. The tee split resulted in 30 barrels of oil released into impervious secondary containment of which 30 barrels were recovered. The failed Victaulic L was located outside of secondary containment and resulted in 12.16 barrels of oil released on pad of which 10 barrels were recovered. A third party resource has been retained to assist in remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004157714
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of fluids over 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes by Kyle Littrell to 'EMNRD-OCD-District1spills@state.nm.us'; 'Griswold, Jim, EMNRD'; Crisha Morgan; blm_nm_cfo_spill@blm.gov via email on Sunday, January 26, 2020 at 9:30 AM	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

N/A

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 2/7/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

Location:	Severus Tank Battery	
Spill Date:	1/25/2020	

Area 1		
Approximate Area =	1068.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.69	bbls

Area 2		
Approximate Area =	2657.69	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	1.47	bbls

Area 3		
Approximate Area =	224.58	cubic ft.

Volume Recovered		
Total Crude Oil =	40.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**42.16**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**40.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004157714
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004157714
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 05/28/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004157714
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 05/28/20

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Date:

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

Signature: Date:

A proud member of WSP

LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

May 28, 2020

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

RE: Deferral Request
Severus Tank Battery
Incident Number NRM2004157714
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Severus Tank Battery (Site) located in Unit O, Section 30, Township 20 South, Range 34 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of crude oil at the Site. Based on the results of the soil sampling events, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NRM2004157714 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On January 25, 2020, a Victaulic tee split opened resulting in the release of 42.16 barrels (bbls) of crude oil into an impervious secondary containment and onto the surrounding caliche pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 40 bbls of crude oil were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on January 26, 2020. XTO submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on February 7, 2020 and was assigned Incident Number NRM2004157714.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well number 323335103370601, located approximately 1.9 miles northwest of the Site. The groundwater well has a depth to groundwater of 173 feet bgs and a total depth of 676 feet bgs. Ground surface

elevation at the water well location is 3,644 feet above mean sea level (amsl), which is approximately 440 feet higher in elevation than the Site. There are three other USGS wells and two NMOSE wells within a 2.8-mile radius that indicate regional depth to groundwater is greater than 100 feet bgs. NMOSE well CP-01389 was most recently sampled in January 2015 and has a reported depth to groundwater of 1,005 feet bgs.

The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 1,762 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is 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 unstable geology (low potential karst designation area). The Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On February 19, 2020, LTE personnel inspected the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected five preliminary soil samples (SS01 through SS05) from within the release extent at a depth of approximately 0.5 feet bgs to assess the lateral extent of affected soil. Preliminary soil samples were 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 and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during excavation activities. Photographs are included in Attachment 1.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC)

procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

The laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, and TPH concentrations exceeded the Closure Criteria in preliminary assessment soil samples SS01 through SS05. Based on field screening results and laboratory analytical results, soil delineation and excavation appeared to be warranted for the Site. Soil analytical results are depicted on Figure 2 and summarized in Table 1. The laboratory analytical reports are provided in Attachment 2.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

The following is a summary of the excavation and delineation activities conducted at the site.

Excavation Activities

On March 26, 2020, LTE oversaw excavation of impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using a track-mounted backhoe and transport vehicle in the vicinity of soil samples SS01 through SS05. The excavations were located directly south of the lined tank battery. Due to the presence of the lined tank battery and associated processing equipment, the excavation was divided into four areas: three east of a buried electrical line running southward from the battery and one west one west of the electrical line.

Following removal of impacted soil from the excavations, LTE collected 5-point composite soil samples on a 200 square foot frequency from sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of 33 composite floor soil samples (FS01 through FS33) and 11 composite sidewall samples (SW01 through SW11) were collected within the excavation extent. Composite floor soil samples FS01 through FS33 were collected at an approximate depth of 2 feet bgs and composite sidewall soil samples SW01 through SW11 were collected from ground surface to approximately 2 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extent and locations of final excavation confirmation samples are presented on Figure 3 and summarized in Table 1.

The laboratory analytical results reported TPH-GRO and TPH-DRO at concentrations exceeding the Closure Criteria in sidewall soil samples SW01, located along the eastern side of an electrical line, SW03, and SW07 through SW10, which were located adjacent to the lined tank battery, electrical line, and other active equipment. In response to sidewall soil sample SW03 exceeding Closure Criteria, the eastern wall of the eastern excavation was further excavated and resampled

(SW11), which was below Closure Criteria for benzene, BTEX, TPH-GRO, TPH-DRO,TPH, and chloride. The remaining confirmation soil samples were below the Closure Criteria for benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride. Based the analytical results from sidewall samples SW07 through SW10 and the inability to advance the excavation further to the north, soil delineation appeared to be warranted for the release extent.

The four excavation extents totaled approximately 5,910 square feet. A total volume of approximately 220 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. After completion of confirmation sampling, the excavation was secured with fencing.

Delineation Activities

On April 23, 2020 LTE personnel advanced 6 boreholes (BH01 through BH06) via a stainless-steel hand auger to delineate remaining impacted soil immediately surrounding active production equipment and lines. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 3. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

Residual impacted soil adjacent to the active production equipment is delineated laterally by delineation soil samples BH02 to the east, BH03 to the West, BH06 to the north, and excavation confirmation samples to the south. The laboratory analytical results for 12 delineation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Confirmation floor soil samples FS01 through FS33 vertically delineated residual TPH impacts to 2 feet bgs. The area containing residual impacted soil, which is impeded by processing equipment and flow lines, is highlighted in Figure 3. An estimated 205 cubic yards of impacted soil remains in the 2 feet immediately adjacent to the containment assuming a maximum depth of 2 feet bgs. Due to the presence of active production equipment, attempts at excavation, hand shoveling, and hydro excavation in this area were used to remove impacted soil in the vicinity of sidewall soil samples SW01 and SW08.

BACKFILL ACTIVITIES

On April 14, 2020 after reviewing laboratory analytical results to confirm all impacted soil had been removed, the excavation was backfilled with clean backfill material. Photographic documentation was conducted during backfill activities and a photographic log is included in Attachment 1.

DEFERRAL REQUEST

Impacts in soil from the crude oil release appeared to accumulate to the immediate south of the lined containment area. As a result, impacted soil was remediated via excavation to the maximum extent possible (MEP). The active production equipment and associated containment limited complete removal of hydrocarbon-impacted soil surrounding the tank battery. Approximately 220 cubic yards of impacted soil were excavated from the Site. Although hydro-excavation was conducted to remove impacted soil to the MEP in the vicinity of sidewall soil samples SW01 and SW08, impacted soil to the immediate south of the lined containment was left in place for compliance with the XTO safety policy regarding soil-disturbing activities within 2 feet of active production equipment.

Residual impacted soil adjacent to the active production equipment is delineated laterally by delineation soil samples BH02 to the east, BH03 to the West, BH06 to the north, and excavation confirmation samples to the south. The laboratory analytical results for 12 delineation soil samples indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Delineation soil samples BH01A through BH06A collected at 3 feet bgs vertically delineate residual TPH-GRO, TPH-DRO, and TPH impacts to 3 feet bgs.

An estimated 205 cubic yards of impacted soil remains in the 2 feet immediately adjacent to the containment assuming a maximum depth of 3 feet bgs. Due to the presence of active production equipment, attempts at excavation, hand shoveling, and hydro excavation in this area were limited. Therefore, XTO requests permission to complete remediation of the remaining impacted soil in the area immediately surrounding the containment during any future major construction, final facility abandonment or when the structure is removed, whichever occurs first. LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Elizabeth A. Naka
Staff Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico

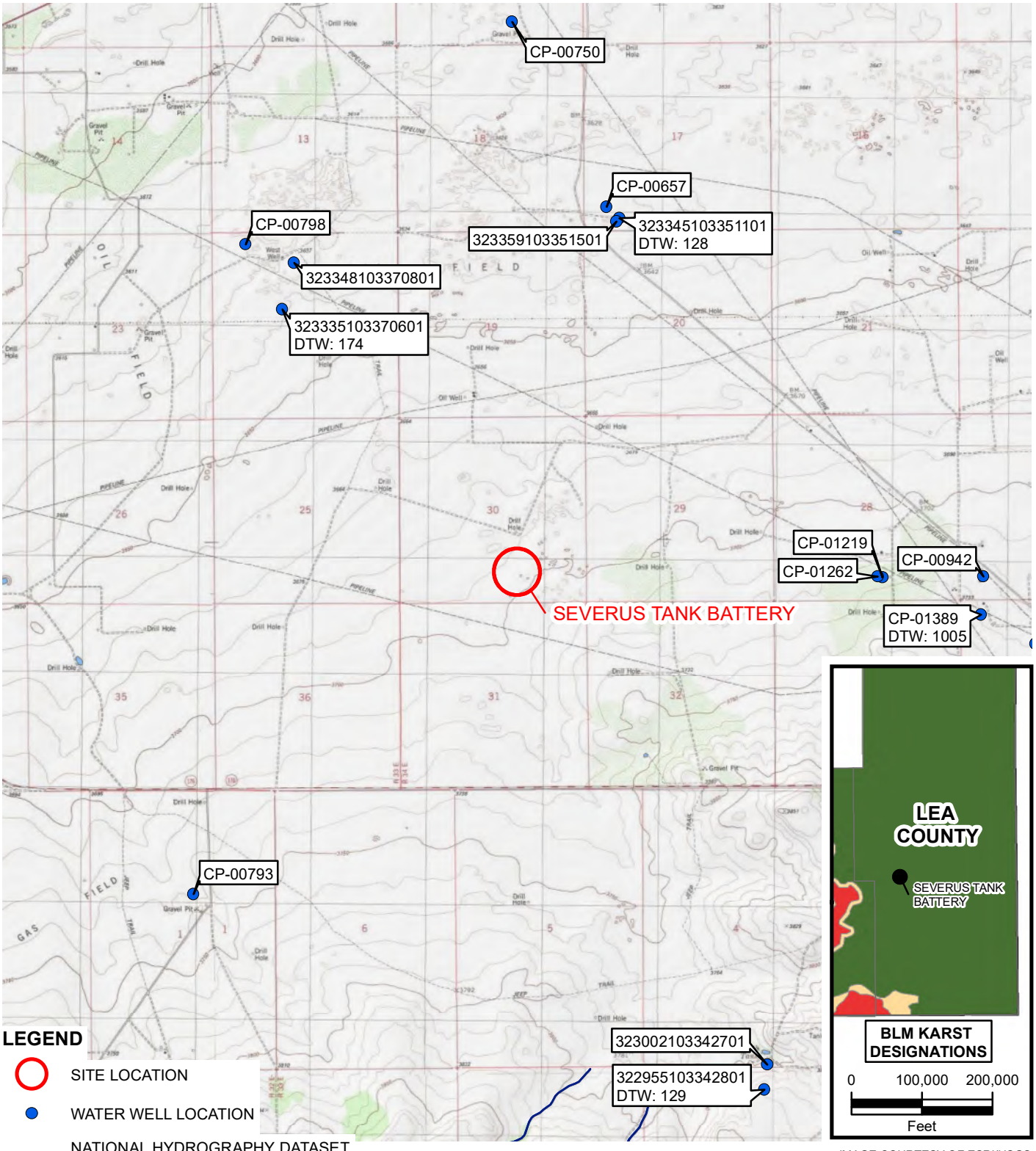
A proud member of WSP

Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Photographic Log
Attachment 2	Laboratory Analytical Reports
Attachment 3	Lithologic/Soil Sampling Log

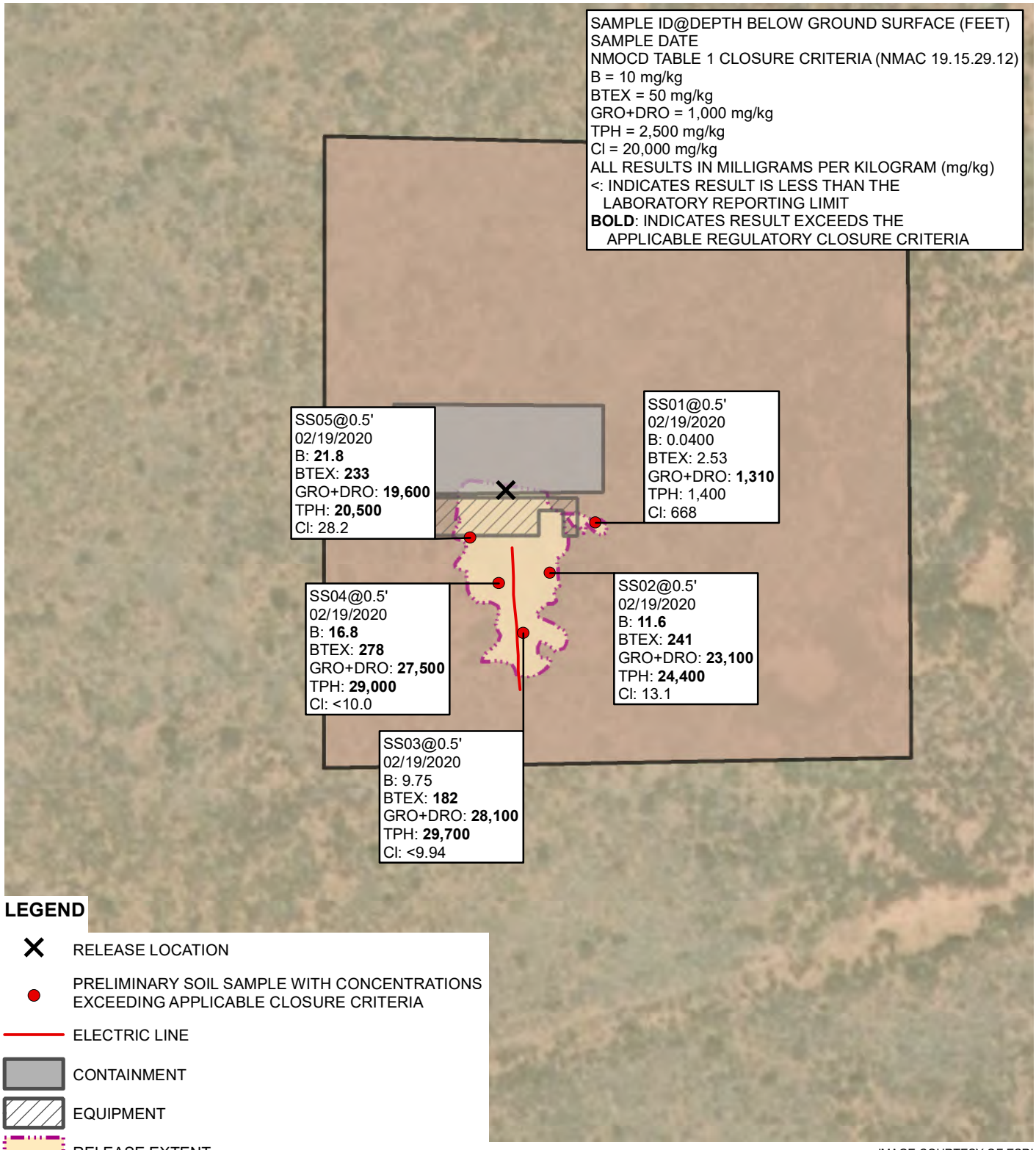
FIGURES



NOTE: INCIDENT NUMBER NRM2004157714
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
SEVERUS TANK BATTERY
UNIT O SEC 30 T20S R34E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

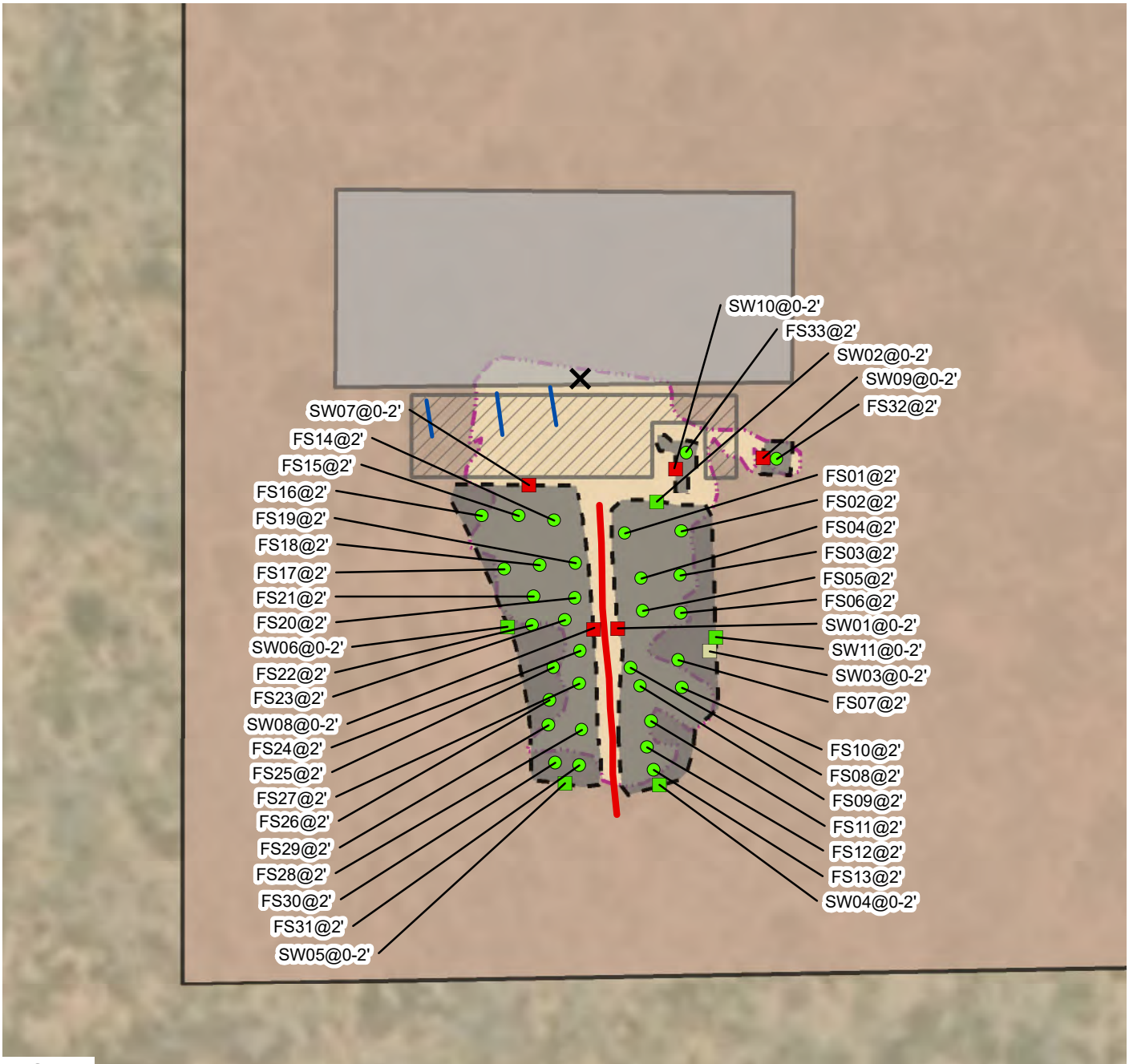
P:\XTO Energy\GIS\MXD\012920027_SEVERUS CTB\012920027_FIG01_SL_2020.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: INCIDENT NUMBER NRM2004157714

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
SEVERUS TANK BATTERY
UNIT O SEC 30 T20S R34E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920027_SEVERUS CTB\012920027_FIG02_PRELIMINARY_2020.mxd



LEGEND

- RELEASE LOCATION
- SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- LOAD OUT LINE
- EXCAVATION EXTENT
- DEFERRAL AREA
- WELLPAD EXTENT
- CONTAINMENT
- EQUIPMENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBER NRM2004157714

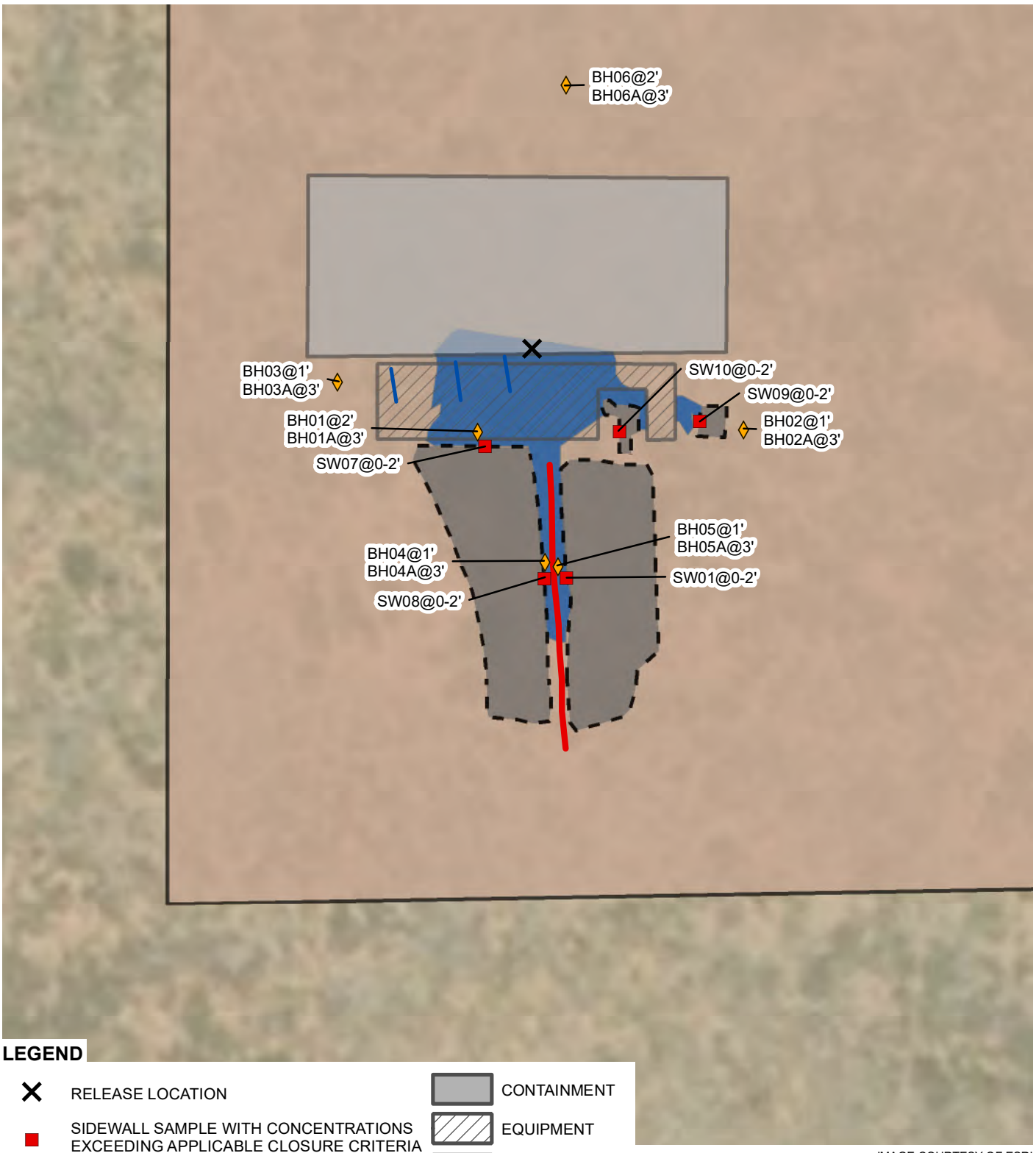
IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
SEVERUS TANK BATTERY
UNIT O SEC 30 T20S R34E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920027_SEVERUS CTB\012920027_FIG03_EXCAVATION_2020.mxd



LEGEND

- RELEASE LOCATION
- SIDEWALL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- LOAD OUT LINE
- EXCAVATION EXTENT
- WELLPAD EXTENT
- CONTAINMENT
- EQUIPMENT
- DEFERRAL AREA

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: INCIDENT NUMBER NRM2004157714

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 4
PROPOSED DEFERRAL AREA
SEVERUS TANK BATTERY
UNIT O SEC 30 T20S R34E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920027_SEVERUS CTB\012920027_FIG04_PROP_DEFERRAL_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

SEVERUS TANK BATTERY
INCIDENT NUMBER NRM2004157714
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)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SS01	0.5	02/19/2020	0.0400	0.411	0.413	1.67	2.53	249	1,060	86.9	**1,310**	1,400	668
SS02	0.5	02/19/2020	**11.6**	71.6	33.3	125	**241**	6,920	16,200	1,320	**23,100**	**24,400**	13.1
SS03	0.5	02/19/2020	9.75	53.8	25.0	93.6	**182**	7,700	20,400	1,640	**28,100**	**29,700**	<9.94
SS04	0.5	02/19/2020	**16.8**	82.8	37.4	141	**278**	8,500	19,000	1,500	**27,500**	**29,000**	<10.0
SS05	0.5	02/19/2020	**21.8**	79.9	28.4	103	**233**	7,150	12,400	921	**19,600**	**20,500**	28.2
BH01	2	4/23/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
BH01A	3	4/23/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
BH02	1	4/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	53.7
BH02A	3	4/23/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1
BH03	1	4/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	23
BH03A	3	4/23/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<9.96
BH04	1	4/23/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	64	<50.1	64	64	39.2
BH04A	3	4/23/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	<9.98
BH05	1	4/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	38.3
BH05A	3	4/23/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0
BH06	2	4/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	17.4
BH06A	3	4/23/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<9.96
SW01	0 - 2	03/31/2020	<0.0200	0.273	0.909	4.96	6.14	681	4,610	449	**5,290**	**5,740**	23.1
SW02	0 - 2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	269	<50.3	269	269	31.7
SW03	0 - 2	03/31/2020	<0.00201	<0.00201	0.00842	0.0622	0.0706	85.5	1,750	164	**1,840**	2,000	457
SW04	0 - 2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	77.4
SW05	0 - 2	03/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	11.7
SW06	0 - 2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	187	<49.8	187	187	33.4

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TABLE 1
SOIL ANALYTICAL RESULTS

SEVERUS TANK BATTERY
INCIDENT NUMBER NRM2004157714
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)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
SW07	0 - 2	03/31/2020	0.0297	1.33	1.33	5.59	8.28	529	4,950	525	**5,480**	**6,000**	37.5
SW08	0 - 2	03/31/2020	<0.0200	0.488	0.701	3.28	4.47	345	2,690	237	**3,040**	**3,270**	47.7
SW09	0 - 2	04/06/2020	0.163	0.688	2.14	10.9	13.9	975	4,740	409	**5,720**	**6,120**	732
SW10	0 - 2	04/06/2020	<0.00201	0.00934	0.110	0.711	0.830	175	2,490	219	**2,670**	**2,880**	30.6
SW11	0 - 2	04/14/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	18.0
FS01	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	<10.1
FS02	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<9.98
FS03	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	89.2	<50.2	89.2	89.2	10.2
FS04	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	<9.96
FS05	2	03/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<9.96
FS06	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	80.7	<50.1	80.7	80.7	12.3
FS07	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
FS08	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.92
FS09	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	79.5	<50.0	79.5	79.5	<10.1
FS10	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
FS11	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	<9.96
FS12	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.92
FS13	2	03/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0
FS14	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	104	<49.9	104	104	10.5
FS15	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	65.3	<50.1	65.3	65.3	25.1
FS16	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	194	<50.3	194	194	22.8
FS17	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	<9.97
FS18	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<9.88

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TABLE 1
SOIL ANALYTICAL RESULTS

SEVERUS TANK BATTERY
INCIDENT NUMBER NRM2004157714
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)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS19	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	98.1	<50.2	98.1	98.1	<9.98
FS20	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98
FS21	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	180	<50.0	180	180	<9.96
FS22	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	244	<50.0	244	244	11.0
FS23	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	76.5	<50.2	76.5	76.5	14.5
FS24	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	11.7
FS25	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	18.7
FS26	2	03/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	12.4
FS27	2	03/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	12.8
FS28	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	17.3
FS28	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	17.3
FS29	2	03/31/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	31.6
FS30	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	19.5
FS31	2	03/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	21.7
FS32	2	04/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	164
FS33	2	04/06/2020	0.0167	0.378	0.209	0.744	1.35	108	432	<49.8	540	540	39.1

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
Text indicates removal of impacted soil
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
NE - not established

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ATTACHMENT 1: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of release to the south of the tank battery facing west.

Photograph 2: View of release to the south of the tank battery facing north.

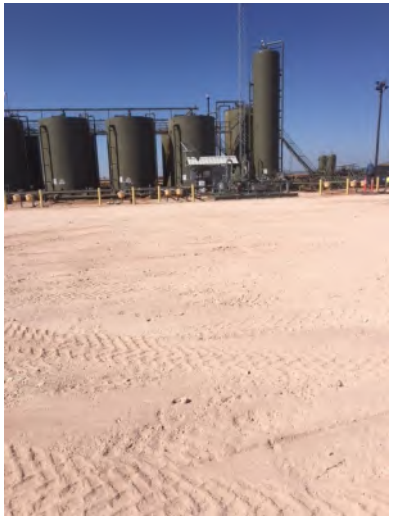
Photograph 3: View of southwestern excavation facing north.

Photograph 4: View of southeastern excavation facing north.

PHOTOGRAPHIC LOG

Photograph 5: View of excavation around active production equipment.

Photograph 6: View of eastern excavation facing north.



Photograph 7: View of final backfill facing north.

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 653027

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

02.20.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.20.2020

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

Reference: XENCO Report No(s): **653027**
Severus 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) 653027. 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. 653027 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,

John Builes
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	02.19.2020 11:00	0.5 ft	653027-001
SS02	S	02.19.2020 11:05	0.5 ft	653027-002
SS03	S	02.19.2020 11:10	0.5 ft	653027-003
SS04	S	02.19.2020 11:15	0.5 ft	653027-004
SS05	S	02.19.2020 11:20	0.5 ft	653027-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Severus CTB

Project ID:
Work Order Number(s): *653027*

Report Date: *02.20.2020*
Date Received: *02.19.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117054 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3117055 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 653027

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 02.19.2020 16:19

Report Date: 02.20.2020 16:31

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	653027-001		653027-002		653027-003		653027-004		653027-005	
	Field Id:	SS01		SS02		SS03		SS04		SS05	
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	02.19.2020 11:00		02.19.2020 11:05		02.19.2020 11:10		02.19.2020 11:15		02.19.2020 11:20	
BTEX by EPA 8021B	***Extracted:***	** ** ** **		** ** ** **		** ** ** **		02.19.2020 17:30		02.19.2020 17:30	
	Analyzed:	02.20.2020 00:28		02.20.2020 09:50		02.20.2020 10:10		02.20.2020 10:30		02.20.2020 10:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.0400	0.0208	11.6	0.998	9.75	0.998	16.8	0.994	21.8	0.998
Toluene		0.411	0.0833	71.6	0.998	53.8	0.998	82.8	0.994	79.9	0.998
Ethylbenzene		0.413	0.0833	33.3	0.998	25.0	0.998	37.4	0.994	28.4	0.998
m,p-Xylenes		1.09	0.167	88.3	2.00	66.7	2.00	101	1.99	74.2	2.00
o-Xylene		0.575	0.0833	36.5	0.998	26.9	0.998	40.0	0.994	28.9	0.998
Total Xylenes		1.67	0.0833	125	0.998	93.6	0.998	141	0.994	103	0.998
Total BTEX		2.53	0.0208	241	0.998	182	0.998	278	0.994	233	0.998
Chloride by EPA 300	***Extracted:***	** ** ** **		** ** ** **		02.19.2020 17:30		02.19.2020 17:30		02.19.2020 17:30	
	Analyzed:	02.19.2020 19:11		02.19.2020 19:18		02.19.2020 19:55		02.19.2020 20:14		02.19.2020 20:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		668	9.98	13.1	9.90	<9.94	9.94	<10.0	10.0	28.2	9.94
TPH by SW8015 Mod	***Extracted:***	02.19.2020 16:42		02.19.2020 16:42		02.19.2020 16:42		02.19.2020 17:00		02.19.2020 17:00	
	Analyzed:	02.19.2020 20:08		02.20.2020 11:17		02.20.2020 11:37		02.20.2020 11:56		02.20.2020 12:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		249	50.2	6920	251	7700	250	8500	251	7150	251
Diesel Range Organics (DRO)		1060	50.2	16200	251	20400	250	19000	251	12400	251
Motor Oil Range Hydrocarbons (MRO)		86.9	50.2	1320	251	1640	250	1500	251	921	251
Total GRO-DRO		1310	50.2	23100	251	28100	250	27500	251	19600	251
Total TPH		1400	50.2	24400	251	29700	250	29000	251	20500	251

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John Builes
Project Manager

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-001	Date Collected:	02.19.2020 11:00	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**668**	9.98	mg/kg	02.19.2020 19:11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 16:42	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**249**	50.2	mg/kg	02.19.2020 20:08		1
Diesel Range Organics (DRO)	C10C28DRO	**1060**	50.2	mg/kg	02.19.2020 20:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**86.9**	50.2	mg/kg	02.19.2020 20:08		1
Total GRO-DRO	PHC628	**1310**	50.2	mg/kg	02.19.2020 20:08		1
Total TPH	PHC635	**1400**	50.2	mg/kg	02.19.2020 20:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.19.2020 20:08	
o-Terphenyl	84-15-1	99	%	70-135	02.19.2020 20:08	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-001	Date Collected:	02.19.2020 11:00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0400**	0.0208	mg/kg	02.20.2020 00:28		1
Toluene	108-88-3	**0.411**	0.0833	mg/kg	02.20.2020 00:28		1
Ethylbenzene	100-41-4	**0.413**	0.0833	mg/kg	02.20.2020 00:28		1
m,p-Xylenes	179601-23-1	**1.09**	0.167	mg/kg	02.20.2020 00:28		1
o-Xylene	95-47-6	**0.575**	0.0833	mg/kg	02.20.2020 00:28		1
Total Xylenes	1330-20-7	**1.67**	0.0833	mg/kg	02.20.2020 00:28		1
Total BTEX		**2.53**	0.0208	mg/kg	02.20.2020 00:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.20.2020 00:28	
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.20.2020 00:28	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-002	Date Collected:	02.19.2020 11:05	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:46	Basis:	Wet Weight
Seq Number:	3117048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.1**	9.90	mg/kg	02.19.2020 19:18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 16:42	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**6920**	251	mg/kg	02.20.2020 11:17		5
Diesel Range Organics (DRO)	C10C28DRO	**16200**	251	mg/kg	02.20.2020 11:17		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1320**	251	mg/kg	02.20.2020 11:17		5
Total GRO-DRO	PHC628	**23100**	251	mg/kg	02.20.2020 11:17		5
Total TPH	PHC635	**24400**	251	mg/kg	02.20.2020 11:17		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.20.2020 11:17	
o-Terphenyl	84-15-1	110	%	70-135	02.20.2020 11:17	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-002	Date Collected:	02.19.2020 11:05	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**11.6**	0.998	mg/kg	02.20.2020 09:50		500
Toluene	108-88-3	**71.6**	0.998	mg/kg	02.20.2020 09:50		500
Ethylbenzene	100-41-4	**33.3**	0.998	mg/kg	02.20.2020 09:50		500
m,p-Xylenes	179601-23-1	**88.3**	2.00	mg/kg	02.20.2020 09:50		500
o-Xylene	95-47-6	**36.5**	0.998	mg/kg	02.20.2020 09:50		500
Total Xylenes	1330-20-7	**125**	0.998	mg/kg	02.20.2020 09:50		500
Total BTEX		**241**	0.998	mg/kg	02.20.2020 09:50		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.20.2020 09:50	
1,4-Difluorobenzene	540-36-3	98	%	70-130	02.20.2020 09:50	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-003	Date Collected:	02.19.2020 11:10	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 17:30	Basis:	Wet Weight
Seq Number:	3117053				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	02.19.2020 19:55	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 16:42	Basis:	Wet Weight
Seq Number:	3117087				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**7700**	250	mg/kg	02.20.2020 11:37		5
Diesel Range Organics (DRO)	C10C28DRO	**20400**	250	mg/kg	02.20.2020 11:37		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1640**	250	mg/kg	02.20.2020 11:37		5
Total GRO-DRO	PHC628	**28100**	250	mg/kg	02.20.2020 11:37		5
Total TPH	PHC635	**29700**	250	mg/kg	02.20.2020 11:37		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.20.2020 11:37	
o-Terphenyl	84-15-1	124	%	70-135	02.20.2020 11:37	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-003	Date Collected:	02.19.2020 11:10	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 14:42	Basis:	Wet Weight
Seq Number:	3117054				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**9.75**	0.998	mg/kg	02.20.2020 10:10		500
Toluene	108-88-3	**53.8**	0.998	mg/kg	02.20.2020 10:10		500
Ethylbenzene	100-41-4	**25.0**	0.998	mg/kg	02.20.2020 10:10		500
m,p-Xylenes	179601-23-1	**66.7**	2.00	mg/kg	02.20.2020 10:10		500
o-Xylene	95-47-6	**26.9**	0.998	mg/kg	02.20.2020 10:10		500
Total Xylenes	1330-20-7	**93.6**	0.998	mg/kg	02.20.2020 10:10		500
Total BTEX		**182**	0.998	mg/kg	02.20.2020 10:10		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	02.20.2020 10:10	
1,4-Difluorobenzene	540-36-3	99	%	70-130	02.20.2020 10:10	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-004	Date Collected:	02.19.2020 11:15	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 17:30	Basis:	Wet Weight
Seq Number:	3117053				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	02.19.2020 20:14	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3117108				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**8500**	251	mg/kg	02.20.2020 11:56		5
Diesel Range Organics (DRO)	C10C28DRO	**19000**	251	mg/kg	02.20.2020 11:56		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1500**	251	mg/kg	02.20.2020 11:56		5
Total GRO-DRO	PHC628	**27500**	251	mg/kg	02.20.2020 11:56		5
Total TPH	PHC635	**29000**	251	mg/kg	02.20.2020 11:56		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	02.20.2020 11:56	
o-Terphenyl	84-15-1	112	%	70-135	02.20.2020 11:56	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-004	Date Collected:	02.19.2020 11:15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 17:30	Basis:	Wet Weight
Seq Number:	3117055				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**16.8**	0.994	mg/kg	02.20.2020 10:30		500
Toluene	108-88-3	**82.8**	0.994	mg/kg	02.20.2020 10:30		500
Ethylbenzene	100-41-4	**37.4**	0.994	mg/kg	02.20.2020 10:30		500
m,p-Xylenes	179601-23-1	**101**	1.99	mg/kg	02.20.2020 10:30		500
o-Xylene	95-47-6	**40.0**	0.994	mg/kg	02.20.2020 10:30		500
Total Xylenes	1330-20-7	**141**	0.994	mg/kg	02.20.2020 10:30		500
Total BTEX		**278**	0.994	mg/kg	02.20.2020 10:30		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	02.20.2020 10:30	
4-Bromofluorobenzene	460-00-4	98	%	70-130	02.20.2020 10:30	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-005	Date Collected:	02.19.2020 11:20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 17:30	Basis:	Wet Weight
Seq Number:	3117053				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.2**	9.94	mg/kg	02.19.2020 20:20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3117108				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**7150**	251	mg/kg	02.20.2020 12:16		5
Diesel Range Organics (DRO)	C10C28DRO	**12400**	251	mg/kg	02.20.2020 12:16		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**921**	251	mg/kg	02.20.2020 12:16		5
Total GRO-DRO	PHC628	**19600**	251	mg/kg	02.20.2020 12:16		5
Total TPH	PHC635	**20500**	251	mg/kg	02.20.2020 12:16		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.20.2020 12:16	
o-Terphenyl	84-15-1	101	%	70-135	02.20.2020 12:16	

Certificate of Analytical Results 653027

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	02.19.2020 16:19
Lab Sample Id:	653027-005	Date Collected:	02.19.2020 11:20	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.19.2020 17:30	Basis:	Wet Weight
Seq Number:	3117055				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**21.8**	0.998	mg/kg	02.20.2020 10:51		500
Toluene	108-88-3	**79.9**	0.998	mg/kg	02.20.2020 10:51		500
Ethylbenzene	100-41-4	**28.4**	0.998	mg/kg	02.20.2020 10:51		500
m,p-Xylenes	179601-23-1	**74.2**	2.00	mg/kg	02.20.2020 10:51		500
o-Xylene	95-47-6	**28.9**	0.998	mg/kg	02.20.2020 10:51		500
Total Xylenes	1330-20-7	**103**	0.998	mg/kg	02.20.2020 10:51		500
Total BTEX		**233**	0.998	mg/kg	02.20.2020 10:51		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	02.20.2020 10:51	
1,4-Difluorobenzene	540-36-3	98	%	70-130	02.20.2020 10:51	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 653027

LT Environmental, Inc.

Severus CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697015-1-BLK — LCS Sample Id: 7697015-1-BKS — LCSD Sample Id: 7697015-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	262	105	90-110	0	20	mg/kg	02.19.2020 15:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117053 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697048-1-BLK — LCS Sample Id: 7697048-1-BKS — LCSD Sample Id: 7697048-1-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	269	108	268	107	90-110	0	20	mg/kg	02.19.2020 19:43	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 652989-001 — MS Sample Id: 652989-001 S — MSD Sample Id: 652989-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.40	200	216	104	214	102	90-110	1	20	mg/kg	02.19.2020 16:17	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117048 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 653026-001 — MS Sample Id: 653026-001 S — MSD Sample Id: 653026-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.6	202	227	106	226	106	90-110	0	20	mg/kg	02.19.2020 18:02	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117053 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 653027-003 — MS Sample Id: 653027-003 S — MSD Sample Id: 653027-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.65	200	218	104	218	104	90-110	0	20	mg/kg	02.19.2020 20:01	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 653027

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117087 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697026-1-BLK — LCS Sample Id: 7697026-1-BKS — LCSD Sample Id: 7697026-1-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	1040	104	971	97	70-135	7	35	mg/kg	02.19.2020 15:08	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-135	3	35	mg/kg	02.19.2020 15:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		131		123		70-135	%	02.19.2020 15:08
o-Terphenyl	108		127		120		70-135	%	02.19.2020 15:08

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117108 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697082-1-BLK — LCS Sample Id: 7697082-1-BKS — LCSD Sample Id: 7697082-1-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	858	86	896	90	70-135	4	35	mg/kg	02.19.2020 21:48	
Diesel Range Organics (DRO)	<50.0	1000	932	93	1050	105	70-135	12	35	mg/kg	02.19.2020 21:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		120		114		70-135	%	02.19.2020 21:48
o-Terphenyl	103		105		113		70-135	%	02.19.2020 21:48

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117087 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697026-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.19.2020 14:49	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117108 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697082-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.20.2020 10:38	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 653027

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117087 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 652989-001 — MS Sample Id: 652989-001 S — MSD Sample Id: 652989-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	930	93	960	96	70-135	3	35	mg/kg	02.19.2020 15:29	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1050	105	70-135	1	35	mg/kg	02.19.2020 15:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		114		70-135	%	02.19.2020 15:29
o-Terphenyl	113		118		70-135	%	02.19.2020 15:29

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117108 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 653026-001 — MS Sample Id: 653026-001 S — MSD Sample Id: 653026-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	898	90	861	86	70-135	4	35	mg/kg	02.19.2020 22:08	
Diesel Range Organics (DRO)	<49.8	996	1030	103	945	95	70-135	9	35	mg/kg	02.19.2020 22:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		106		70-135	%	02.19.2020 22:08
o-Terphenyl	110		107		70-135	%	02.19.2020 22:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3117054 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697014-1-BLK — LCS Sample Id: 7697014-1-BKS — LCSD Sample Id: 7697014-1-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	0.104	104	70-130	2	35	mg/kg	02.19.2020 15:58	
Toluene	<0.00200	0.100	0.0982	98	0.101	101	70-130	3	35	mg/kg	02.19.2020 15:58	
Ethylbenzene	<0.00200	0.100	0.0942	94	0.0977	98	71-129	4	35	mg/kg	02.19.2020 15:58	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.202	101	70-135	4	35	mg/kg	02.19.2020 15:58	
o-Xylene	<0.00200	0.100	0.0968	97	0.101	101	71-133	4	35	mg/kg	02.19.2020 15:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		104		70-130	%	02.19.2020 15:58
4-Bromofluorobenzene	95		94		93		70-130	%	02.19.2020 15:58

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 653027

LT Environmental, Inc.

Severus CTB

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3117055 — Matrix: Solid — Date Prep: 02.19.2020
MB Sample Id: 7697049-1-BLK — LCS Sample Id: 7697049-1-BKS — LCSD Sample Id: 7697049-1-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	0.103	103	0.104	104	70-130	1	35	mg/kg	02.20.2020 02:51	
Toluene	<0.00200	0.100	0.0994	99	0.0995	100	70-130	0	35	mg/kg	02.20.2020 02:51	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0945	95	71-129	1	35	mg/kg	02.20.2020 02:51	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.194	97	70-135	1	35	mg/kg	02.20.2020 02:51	
o-Xylene	<0.00200	0.100	0.0980	98	0.0976	98	71-133	0	35	mg/kg	02.20.2020 02:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		105		70-130	%	02.20.2020 02:51
4-Bromofluorobenzene	95		95		93		70-130	%	02.20.2020 02:51

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3117054 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 652989-001 — MS Sample Id: 652989-001 S — MSD Sample Id: 652989-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0910	91	0.103	103	70-130	12	35	mg/kg	02.19.2020 16:39	
Toluene	<0.00200	0.100	0.0843	84	0.0959	96	70-130	13	35	mg/kg	02.19.2020 16:39	
Ethylbenzene	<0.00200	0.100	0.0796	80	0.0922	92	71-129	15	35	mg/kg	02.19.2020 16:39	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.190	95	70-135	14	35	mg/kg	02.19.2020 16:39	
o-Xylene	<0.00200	0.100	0.0826	83	0.0950	95	71-133	14	35	mg/kg	02.19.2020 16:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	02.19.2020 16:39
4-Bromofluorobenzene	93		92		70-130	%	02.19.2020 16:39

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3117055 — Matrix: Soil — Date Prep: 02.19.2020
Parent Sample Id: 653026-008 — MS Sample Id: 653026-008 S — MSD Sample Id: 653026-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0981	97	0.0958	95	70-130	2	35	mg/kg	02.20.2020 03:32	
Toluene	<0.00202	0.101	0.0954	94	0.0897	89	70-130	6	35	mg/kg	02.20.2020 03:32	
Ethylbenzene	<0.00202	0.101	0.0913	90	0.0817	81	71-129	11	35	mg/kg	02.20.2020 03:32	
m,p-Xylenes	0.00471	0.202	0.188	91	0.167	80	70-135	12	35	mg/kg	02.20.2020 03:32	
o-Xylene	0.00338	0.101	0.0939	90	0.0837	80	71-133	11	35	mg/kg	02.20.2020 03:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		70-130	%	02.20.2020 03:32
4-Bromofluorobenzene	95		95		70-130	%	02.20.2020 03:32

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Chain of Custody

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

Work Order No: 453027

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Severus CTB	Turn Around	
Project Number:		Routine	☑
P.O. Number:	Spill date 01-25-20	Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	1.2	Temp Blank:	Yes No	Wet Ice: Yes No
Received Intact:	Yes No	Thermometer ID		T-NM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:		-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:		5

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS01	S	02/19/20	1100	0.5'	1	X	X	X
SS02			1105			X	X	X
SS03			1110			X	X	X
SS04			1115			X	X	X
SS05			1120			X	X	X

Work Order Notes

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

Sample Comments

discrete

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2/19/20 16:19	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Analytical Report 658078

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920027

04.08.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.08.2020

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

Reference: XENCO Report No(s): **658078**
Severus 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) 658078. 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. 658078 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS32	S	04.06.2020 14:50	2 ft	658078-001
FS33	S	04.06.2020 15:00	2 ft	658078-002
SW09	S	04.06.2020 14:55	0 - 2 ft	658078-003
SW10	S	04.06.2020 15:18	0 - 2 ft	658078-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Severus CTB

Project ID: *012920027*
Work Order Number(s): *658078*

Report Date: *04.08.2020*
Date Received: *04.07.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122298 BTEX by EPA 8021B

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

Certificate of Analysis Summary 658078

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 12:34
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658078-001		658078-002		658078-003		658078-004					
	Field Id:	FS32		FS33		SW09		SW10					
	Depth:	2- ft		2- ft		0-2 ft		0-2 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	04.06.2020 14:50		04.06.2020 15:00		04.06.2020 14:55		04.06.2020 15:18					
BTEX by EPA 8021B	***Extracted:***	04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36					
	Analyzed:	04.07.2020 15:39		04.07.2020 15:59		04.07.2020 16:20		04.07.2020 17:21					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	0.0167	0.00200	0.163	0.0204	<0.00201	0.00201				
Toluene		<0.00200	0.00200	0.378	0.00200	0.688	0.0204	0.00934	0.00201				
Ethylbenzene		<0.00200	0.00200	0.209	0.00200	2.14	0.0204	0.110	0.00201				
m,p-Xylenes		<0.00399	0.00399	0.422	0.00399	7.62	0.0408	0.400	0.00402				
o-Xylene		<0.00200	0.00200	0.322	0.00200	3.24	0.0204	0.311	0.00201				
Total Xylenes		<0.00200	0.00200	0.744	0.00200	10.9	0.0204	0.711	0.00201				
Total BTEX		<0.00200	0.00200	1.35	0.00200	13.9	0.0204	0.830	0.00201				
Chloride by EPA 300	***Extracted:***	04.07.2020 11:01		04.07.2020 11:01		04.07.2020 11:01		04.07.2020 14:40					
	Analyzed:	04.07.2020 18:42		04.07.2020 18:48		04.07.2020 18:53		04.08.2020 08:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		164	9.92	39.1	9.86	732	9.88	30.6	9.96				
TPH by SW8015 Mod	***Extracted:***	04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00					
	Analyzed:	04.07.2020 16:44		04.07.2020 17:04		04.07.2020 21:09		04.07.2020 20:28					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	108	49.8	975	50.2	175	50.1				
Diesel Range Organics (DRO)		<50.3	50.3	432	49.8	4740	50.2	2490	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<49.8	49.8	409	50.2	219	50.1				
Total GRO-DRO		<50.3	50.3	540	49.8	5720	50.2	2670	50.1				
Total TPH		<50.3	50.3	540	49.8	6120	50.2	2880	50.1				

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-001	Date Collected:	04.06.2020 14:50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:01	Basis:	Wet Weight
Seq Number:	3122305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**164**	9.92	mg/kg	04.07.2020 18:42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.07.2020 16:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.07.2020 16:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.07.2020 16:44	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.07.2020 16:44	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.07.2020 16:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.07.2020 16:44	
o-Terphenyl	84-15-1	116	%	70-135	04.07.2020 16:44	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-001	Date Collected:	04.06.2020 14:50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.07.2020 15:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.07.2020 15:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 15:39	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.07.2020 15:39	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-002	Date Collected:	04.06.2020 15:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:01	Basis:	Wet Weight
Seq Number:	3122305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.1**	9.86	mg/kg	04.07.2020 18:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**108**	49.8	mg/kg	04.07.2020 17:04		1
Diesel Range Organics (DRO)	C10C28DRO	**432**	49.8	mg/kg	04.07.2020 17:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.07.2020 17:04	U	1
Total GRO-DRO	PHC628	**540**	49.8	mg/kg	04.07.2020 17:04		1
Total TPH	PHC635	**540**	49.8	mg/kg	04.07.2020 17:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	04.07.2020 17:04	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 17:04	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-002	Date Collected:	04.06.2020 15:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0167**	0.00200	mg/kg	04.07.2020 15:59		1
Toluene	108-88-3	**0.378**	0.00200	mg/kg	04.07.2020 15:59		1
Ethylbenzene	100-41-4	**0.209**	0.00200	mg/kg	04.07.2020 15:59		1
m,p-Xylenes	179601-23-1	**0.422**	0.00399	mg/kg	04.07.2020 15:59		1
o-Xylene	95-47-6	**0.322**	0.00200	mg/kg	04.07.2020 15:59		1
Total Xylenes	1330-20-7	**0.744**	0.00200	mg/kg	04.07.2020 15:59		1
Total BTEX		**1.35**	0.00200	mg/kg	04.07.2020 15:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	04.07.2020 15:59	
1,4-Difluorobenzene	540-36-3	90	%	70-130	04.07.2020 15:59	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-003	Date Collected:	04.06.2020 14:55	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:01	Basis:	Wet Weight
Seq Number:	3122305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**732**	9.88	mg/kg	04.07.2020 18:53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**975**	50.2	mg/kg	04.07.2020 21:09		1
Diesel Range Organics (DRO)	C10C28DRO	**4740**	50.2	mg/kg	04.07.2020 21:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**409**	50.2	mg/kg	04.07.2020 21:09		1
Total GRO-DRO	PHC628	**5720**	50.2	mg/kg	04.07.2020 21:09		1
Total TPH	PHC635	**6120**	50.2	mg/kg	04.07.2020 21:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	04.07.2020 21:09	
o-Terphenyl	84-15-1	116	%	70-135	04.07.2020 21:09	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-003	Date Collected:	04.06.2020 14:55	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.163**	0.0204	mg/kg	04.07.2020 16:20		1
Toluene	108-88-3	**0.688**	0.0204	mg/kg	04.07.2020 16:20		1
Ethylbenzene	100-41-4	**2.14**	0.0204	mg/kg	04.07.2020 16:20		1
m,p-Xylenes	179601-23-1	**7.62**	0.0408	mg/kg	04.07.2020 16:20		1
o-Xylene	95-47-6	**3.24**	0.0204	mg/kg	04.07.2020 16:20		1
Total Xylenes	1330-20-7	**10.9**	0.0204	mg/kg	04.07.2020 16:20		1
Total BTEX		**13.9**	0.0204	mg/kg	04.07.2020 16:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.07.2020 16:20	
1,4-Difluorobenzene	540-36-3	117	%	70-130	04.07.2020 16:20	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-004	Date Collected:	04.06.2020 15:18	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**30.6**	9.96	mg/kg	04.08.2020 08:15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**175**	50.1	mg/kg	04.07.2020 20:28		1
Diesel Range Organics (DRO)	C10C28DRO	**2490**	50.1	mg/kg	04.07.2020 20:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**219**	50.1	mg/kg	04.07.2020 20:28		1
Total GRO-DRO	PHC628	**2670**	50.1	mg/kg	04.07.2020 20:28		1
Total TPH	PHC635	**2880**	50.1	mg/kg	04.07.2020 20:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	04.07.2020 20:28	
o-Terphenyl	84-15-1	121	%	70-135	04.07.2020 20:28	

Certificate of Analytical Results 658078

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658078-004	Date Collected:	04.06.2020 15:18	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 17:21	U	1
Toluene	108-88-3	**0.00934**	0.00201	mg/kg	04.07.2020 17:21		1
Ethylbenzene	100-41-4	**0.110**	0.00201	mg/kg	04.07.2020 17:21		1
m,p-Xylenes	179601-23-1	**0.400**	0.00402	mg/kg	04.07.2020 17:21		1
o-Xylene	95-47-6	**0.311**	0.00201	mg/kg	04.07.2020 17:21		1
Total Xylenes	1330-20-7	**0.711**	0.00201	mg/kg	04.07.2020 17:21		1
Total BTEX		**0.830**	0.00201	mg/kg	04.07.2020 17:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.07.2020 17:21	
4-Bromofluorobenzene	460-00-4	120	%	70-130	04.07.2020 17:21	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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

QC Summary 658078

LT Environmental, Inc.

Severus CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122305 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700689-1-BLK — LCS Sample Id: 7700689-1-BKS — LCSD Sample Id: 7700689-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	260	104	90-110	0	20	mg/kg	04.07.2020 16:14	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700731-1-BLK — LCS Sample Id: 7700731-1-BKS — LCSD Sample Id: 7700731-1-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	273	109	253	101	90-110	8	20	mg/kg	04.08.2020 08:04	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122305 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658052-001 — MS Sample Id: 658052-001 S — MSD Sample Id: 658052-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7800	202	8010	104	8000	99	90-110	0	20	mg/kg	04.07.2020 16:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122305 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658074-001 — MS Sample Id: 658074-001 S — MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	34.1	199	248	107	257	110	90-110	4	20	mg/kg	04.07.2020 17:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658078-004 — MS Sample Id: 658078-004 S — MSD Sample Id: 658078-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.6	199	240	105	240	105	90-110	0	20	mg/kg	04.08.2020 08:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Solid — Date Prep: 04.07.2020
Parent Sample Id: 658081-014 — MS Sample Id: 658081-014 S — MSD Sample Id: 658081-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	216	108	221	109	90-110	2	20	mg/kg	04.08.2020 10:10	

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

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

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

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

QC Summary 658078

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700752-1-BLK — LCS Sample Id: 7700752-1-BKS — LCSD Sample Id: 7700752-1-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	984	98	999	100	70-135	2	35	mg/kg	04.07.2020 14:00	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1150	115	70-135	1	35	mg/kg	04.07.2020 14:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		124		126		70-135	%	04.07.2020 14:00
o-Terphenyl	116		124		126		70-135	%	04.07.2020 14:00

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700752-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.07.2020 13:40	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658074-001 — MS Sample Id: 658074-001 S — MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	1030	102	70-135	3	35	mg/kg	04.07.2020 15:01	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1110	110	70-135	8	35	mg/kg	04.07.2020 15:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		130		70-135	%	04.07.2020 15:01
o-Terphenyl	128		133		70-135	%	04.07.2020 15:01

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122298 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700729-1-BLK — LCS Sample Id: 7700729-1-BKS — LCSD Sample Id: 7700729-1-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	0.0985	99	70-130	3	35	mg/kg	04.07.2020 11:34	
Toluene	<0.00200	0.100	0.0961	96	0.0940	94	70-130	2	35	mg/kg	04.07.2020 11:34	
Ethylbenzene	<0.00200	0.100	0.0902	90	0.0879	88	71-129	3	35	mg/kg	04.07.2020 11:34	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.181	91	70-135	2	35	mg/kg	04.07.2020 11:34	
o-Xylene	<0.00200	0.100	0.0940	94	0.0919	92	71-133	2	35	mg/kg	04.07.2020 11:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		105		105		70-130	%	04.07.2020 11:34
4-Bromofluorobenzene	94		94		92		70-130	%	04.07.2020 11:34

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 658078

LT Environmental, Inc.

Severus CTB

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

Seq Number: 3122298 Matrix: Soil Date Prep: 04.07.2020

Parent Sample Id: 658074-001 MS Sample Id: 658074-001 S MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.113	114	0.0959	96	70-130	16	35	mg/kg	04.07.2020 12:15	
Toluene	0.00845	0.0994	0.118	110	0.110	102	70-130	7	35	mg/kg	04.07.2020 12:15	
Ethylbenzene	0.0129	0.0994	0.111	99	0.113	101	71-129	2	35	mg/kg	04.07.2020 12:15	
m,p-Xylenes	0.0234	0.199	0.231	104	0.238	108	70-135	3	35	mg/kg	04.07.2020 12:15	
o-Xylene	0.0195	0.0994	0.123	104	0.117	98	71-133	5	35	mg/kg	04.07.2020 12:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		98		70-130	%	04.07.2020 12:15
4-Bromofluorobenzene	98		95		70-130	%	04.07.2020 12:15

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 658078

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐

State of Project: NM

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Severus CTB	Turn Around	
Project Number:	012920027	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
FS32	S	04/06/20	1450	2'	1	X	X	X	
FS33	↓	↓	1500	2'	↓	X	X	X	composite
SW09	↓	↓	1455	0-2'	↓	X	X	X	↓
SW10	↓	↓	1518	0-2'	↓	X	X	X	↓

Work Order Notes

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

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

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

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
[signature]	[signature]	4/7/20 / 4:00am	[signature]	[signature]	4/7/20 08:25

Revised Date 051418 Rev. 2018.1

 Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.07.2020 08.25.00 AM

Work Order #: 658078

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.07.2020

Checklist reviewed by: Jessica Kramer Date: 04.07.2020

Jessica Kramer

Analytical Report 658081

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920027

04.08.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.08.2020

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

Reference: XENCO Report No(s): **658081**
Severus 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) 658081. 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. 658081 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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Sample Cross Reference 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	04.02.2020 11:02	2 ft	658081-001
BH01A	S	04.02.2020 11:04	3 ft	658081-002
BH02	S	04.02.2020 11:07	3 ft	658081-003
BH02A	S	04.02.2020 11:08	4 ft	658081-004
BH03	S	04.02.2020 11:57	0.5 ft	658081-005
BH03A	S	04.02.2020 12:24	4 ft	658081-006
BH04	S	04.06.2020 09:02	0.5 ft	658081-007
BH04A	S	04.06.2020 09:23	3 ft	658081-008
BH05	S	04.06.2020 09:38	0.5 ft	658081-009
BH05A	S	04.06.2020 09:43	3 ft	658081-010
BH06	S	04.06.2020 10:03	0.5 ft	658081-011
BH06A	S	04.06.2020 10:07	3 ft	658081-012
BH07	S	04.06.2020 10:44	2 ft	658081-013
BH07A	S	04.06.2020 10:46	3 ft	658081-014
BH08	S	04.06.2020 11:09	2 ft	658081-015
BH08A	S	04.06.2020 11:12	3 ft	658081-016
BH09	S	04.06.2020 11:45	1 ft	658081-017
BH09A	S	04.06.2020 11:48	3 ft	658081-018
BH010	S	04.06.2020 12:06	0.5 ft	658081-019
BH010A	S	04.06.2020 12:34	5 ft	658081-020
BH011	S	04.06.2020 14:54	2 ft	658081-021
BH011A	S	04.06.2020 14:57	3 ft	658081-022
BH012	S	04.06.2020 15:03	0.5 ft	658081-023
BH012A	S	04.06.2020 15:07	3 ft	658081-024
BH013	S	04.06.2020 15:16	2 ft	658081-025
BH013A	S	04.06.2020 15:17	3 ft	658081-026

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Severus CTB

Project ID: *012920027*
Work Order Number(s): *658081*

Report Date: *04.08.2020*
Date Received: *04.07.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3122298 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3122299 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3122308 Chloride by EPA 300
Lab Sample ID 658081-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 658081-020, -021, -022, -023, -024, -025, -026.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 658081

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 15:36
Project Manager: Jessica Kramer

Analysis Requested		658081-001		658081-002		658081-003		658081-004		658081-005		658081-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	2- ft		3- ft		3- ft		4- ft		0.5- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.02.2020 11:02		04.02.2020 11:04		04.02.2020 11:07		04.02.2020 11:08		04.02.2020 11:57		04.02.2020 12:24	
BTEX by EPA 8021B	Extracted:	04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36	
	Analyzed:	04.07.2020 17:41		04.07.2020 18:02		04.07.2020 18:22		04.07.2020 18:43		04.07.2020 19:03		04.07.2020 19:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	2.76	0.200	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	22.0	0.200	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	11.7	0.200	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00402	0.00402	<0.00402	0.00402	21.2	0.400	<0.00404	0.00404
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	9.14	0.200	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	30.3	0.200	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	66.8	0.200	<0.00202	0.00202
Chloride by EPA 300	Extracted:	04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40	
	Analyzed:	04.08.2020 08:32		04.08.2020 08:37		04.08.2020 08:43		04.08.2020 08:48		04.08.2020 09:05		04.08.2020 09:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		108	10.0	66.6	10.1	54.2	9.92	24.3	9.96	361	10.1	<9.98	9.98
TPH by SW8015 Mod	Extracted:	04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00	
	Analyzed:	04.07.2020 17:25		04.07.2020 17:45		04.07.2020 18:05		04.07.2020 18:26		04.07.2020 21:29		04.07.2020 19:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.0	50.0	1070	50.1	<50.2	50.2
Diesel Range Organics (DRO)		<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.0	50.0	3350	50.1	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.0	50.0	276	50.1	<50.2	50.2
Total GRO-DRO		<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.0	50.0	4420	50.1	<50.2	50.2
Total TPH		<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.0	50.0	4700	50.1	<50.2	50.2

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Jessica Kramer
Project Manager

Certificate of Analysis Summary 658081

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 15:36
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658081-007		658081-008		658081-009		658081-010		658081-011		658081-012	
	Field Id:	BH04		BH04A		BH05		BH05A		BH06		BH06A	
	Depth:	0.5- ft		3- ft		0.5- ft		3- ft		0.5- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.06.2020 09:02		04.06.2020 09:23		04.06.2020 09:38		04.06.2020 09:43		04.06.2020 10:03		04.06.2020 10:07	
BTEX by EPA 8021B	***Extracted:***	04.07.2020 10:36		04.07.2020 10:36		04.07.2020 10:36		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25	
	Analyzed:	04.07.2020 20:04		04.07.2020 20:25		04.07.2020 20:45		04.07.2020 14:55		04.07.2020 15:15		04.07.2020 14:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00402	0.00402	<0.00404	0.00404	<0.00403	0.00403	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40	
	Analyzed:	04.08.2020 09:16		04.08.2020 09:21		04.08.2020 09:27		04.08.2020 09:32		04.08.2020 09:37		04.08.2020 09:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		10.2	9.88	28.5	9.98	33.5	9.96	57.0	9.96	29.2	10.0	28.7	9.94
TPH by SW8015 Mod	***Extracted:***	04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00	
	Analyzed:	04.07.2020 19:27		04.07.2020 19:47		04.07.2020 20:08		04.07.2020 15:42		04.07.2020 16:03		04.07.2020 14:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.2	50.2	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.2	50.2	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.2	50.2	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.0	50.0
Total GRO-DRO		<50.0	50.0	<50.2	50.2	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.0	50.0
Total TPH		<50.0	50.0	<50.2	50.2	<50.2	50.2	<49.8	49.8	<49.9	49.9	<50.0	50.0

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Jessica Kramer
Project Manager

Certificate of Analysis Summary 658081

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 15:36
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658081-013		658081-014		658081-015		658081-016		658081-017		658081-018	
	Field Id:	BH07		BH07A		BH08		BH08A		BH09		BH09A	
	Depth:	2- ft		3- ft		2- ft		3- ft		1- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.06.2020 10:44		04.06.2020 10:46		04.06.2020 11:09		04.06.2020 11:12		04.06.2020 11:45		04.06.2020 11:48	
BTEX by EPA 8021B	***Extracted:***	04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25	
	Analyzed:	04.07.2020 15:36		04.07.2020 15:56		04.07.2020 16:16		04.07.2020 16:37		04.07.2020 16:57		04.07.2020 17:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Toluene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes		<0.00404	0.00404	<0.00404	0.00404	<0.00404	0.00404	<0.00404	0.00404	<0.00398	0.00398	<0.00396	0.00396
o-Xylene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Total BTEX		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40		04.07.2020 14:40	
	Analyzed:	04.08.2020 09:48		04.08.2020 09:54		04.08.2020 10:21		04.08.2020 10:27		04.08.2020 10:32		04.08.2020 10:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		42.5	10.1	<10.1	10.1	38.8	10.0	10.9	10.1	104	9.92	<10.0	10.0
TPH by SW8015 Mod	***Extracted:***	04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00	
	Analyzed:	04.07.2020 16:23		04.07.2020 16:44		04.07.2020 17:04		04.07.2020 17:25		04.07.2020 17:45		04.07.2020 18:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.1	50.1	<50.2	50.2	<50.0	50.0	<49.8	49.8	<50.1	50.1
Diesel Range Organics (DRO)		<50.1	50.1	<50.1	50.1	<50.2	50.2	<50.0	50.0	<49.8	49.8	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.1	50.1	<50.2	50.2	<50.0	50.0	<49.8	49.8	<50.1	50.1
Total GRO-DRO		<50.1	50.1	<50.1	50.1	<50.2	50.2	<50.0	50.0	<49.8	49.8	<50.1	50.1
Total TPH		<50.1	50.1	<50.1	50.1	<50.2	50.2	<50.0	50.0	<49.8	49.8	<50.1	50.1

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Jessica Kramer
Project Manager

Certificate of Analysis Summary 658081

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 15:36
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	658081-019		658081-020		658081-021		658081-022		658081-023		658081-024	
	Field Id:	BH010		BH010A		BH011		BH011A		BH012		BH012A	
	Depth:	0.5- ft		5- ft		2- ft		3- ft		0.5- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	04.06.2020 12:06		04.06.2020 12:34		04.06.2020 14:54		04.06.2020 14:57		04.06.2020 15:03		04.06.2020 15:07	
BTEX by EPA 8021B	***Extracted:***	04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25		04.07.2020 11:25	
	Analyzed:	04.08.2020 09:49		04.07.2020 19:20		04.07.2020 19:40		04.07.2020 20:01		04.07.2020 20:21		04.07.2020 20:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		39.2	1.00	0.00244	0.00202	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
Toluene		167	1.00	0.00537	0.00202	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
Ethylbenzene		75.6	1.00	0.00381	0.00202	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
m,p-Xylenes		217	2.00	0.00712	0.00404	0.0165	0.00398	<0.00397	0.00397	<0.00401	0.00401	<0.0200	0.0200
o-Xylene		74.3	1.00	0.00493	0.00202	0.0125	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
Total Xylenes		291	1.00	0.0121	0.00202	0.0290	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
Total BTEX		573	1.00	0.0237	0.00202	0.0290	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.0100	0.0100
Chloride by EPA 300	***Extracted:***	04.07.2020 14:40		04.07.2020 14:42		04.07.2020 14:42		04.07.2020 14:42		04.07.2020 14:42		04.07.2020 14:42	
	Analyzed:	04.08.2020 10:43		04.07.2020 19:38		04.07.2020 19:55		04.07.2020 20:01		04.07.2020 20:07		04.07.2020 20:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.2	9.98	<9.98	9.98	<10.0	10.0	<9.98	9.98	3820	9.98	24.3	10.1
TPH by SW8015 Mod	***Extracted:***	04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00		04.07.2020 14:00	
	Analyzed:	04.08.2020 10:03		04.07.2020 18:26		04.07.2020 19:07		04.07.2020 19:27		04.07.2020 19:47		04.07.2020 20:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		11100	503	<50.2	50.2	<50.3	50.3	<50.3	50.3	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		24300	503	<50.2	50.2	<50.3	50.3	<50.3	50.3	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		2970	503	<50.2	50.2	<50.3	50.3	<50.3	50.3	<49.9	49.9	<50.0	50.0
Total GRO-DRO		35400	503	<50.2	50.2	<50.3	50.3	<50.3	50.3	<49.9	49.9	<50.0	50.0
Total TPH		38400	503	<50.2	50.2	<50.3	50.3	<50.3	50.3	<49.9	49.9	<50.0	50.0

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 658081

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.07.2020 08:25
Report Date: 04.08.2020 15:36
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	658081-025		658081-026				
	Field Id:	BH013		BH013A				
	Depth:	2- ft		3- ft				
	Matrix:	SOIL		SOIL				
	Sampled:	04.06.2020 15:16		04.06.2020 15:17				
BTEX by EPA 8021B	***Extracted:***	04.07.2020 11:25		04.07.2020 11:25				
	Analyzed:	04.07.2020 21:02		04.07.2020 21:22				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Benzene		<0.00201	0.00201	<0.00202	0.00202			
Toluene		<0.00201	0.00201	<0.00202	0.00202			
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202			
m,p-Xylenes		<0.00402	0.00402	<0.00403	0.00403			
o-Xylene		<0.00201	0.00201	<0.00202	0.00202			
Total Xylenes		<0.00201	0.00201	<0.00202	0.00202			
Total BTEX		<0.00201	0.00201	<0.00202	0.00202			
Chloride by EPA 300	***Extracted:***	04.07.2020 14:42		04.07.2020 14:42				
	Analyzed:	04.07.2020 20:18		04.07.2020 20:36				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		12.7	10.1	<50.2	50.2			
TPH by SW8015 Mod	***Extracted:***	04.07.2020 14:00		04.07.2020 14:00				
	Analyzed:	04.07.2020 20:28		04.07.2020 20:48				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2			
Diesel Range Organics (DRO)		<50.1	50.1	<50.2	50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2			
Total GRO-DRO		<50.1	50.1	<50.2	50.2			
Total TPH		<50.1	50.1	<50.2	50.2			

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Jessica Kramer
Project Manager

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-001	Date Collected:	04.02.2020 11:02	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**108**	10.0	mg/kg	04.08.2020 08:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.07.2020 17:25	
o-Terphenyl	84-15-1	114	%	70-135	04.07.2020 17:25	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-001	Date Collected:	04.02.2020 11:02	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 17:41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 17:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.07.2020 17:41	
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.07.2020 17:41	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **BH01A** Matrix: Soil Date Received:04.07.2020 08:25
Lab Sample Id: 658081-002 Date Collected: 04.02.2020 11:04 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 04.07.2020 14:40 Basis: Wet Weight
Seq Number: 3122329

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**66.6**	10.1	mg/kg	04.08.2020 08:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.07.2020 17:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.07.2020 17:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.07.2020 17:45	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.07.2020 17:45	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.07.2020 17:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.07.2020 17:45	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 17:45	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-002	Date Collected:	04.02.2020 11:04	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.07.2020 18:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.07.2020 18:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.07.2020 18:02	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 18:02	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **BH02** Matrix: Soil Date Received:04.07.2020 08:25
Lab Sample Id: 658081-003 Date Collected: 04.02.2020 11:07 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 04.07.2020 14:40 Basis: Wet Weight
Seq Number: 3122329

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**54.2**	9.92	mg/kg	04.08.2020 08:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 18:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 18:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 18:05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 18:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 18:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 18:05	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 18:05	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-003	Date Collected:	04.02.2020 11:07	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 18:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.07.2020 18:22	
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.07.2020 18:22	

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Severus CTB

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-004	Date Collected:	04.02.2020 11:08	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.3**	9.96	mg/kg	04.08.2020 08:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 18:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 18:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 18:26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 18:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 18:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 18:26	
o-Terphenyl	84-15-1	114	%	70-135	04.07.2020 18:26	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-004	Date Collected:	04.02.2020 11:08	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 18:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.07.2020 18:43	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.07.2020 18:43	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-005	Date Collected:	04.02.2020 11:57	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**361**	10.1	mg/kg	04.08.2020 09:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1070**	50.1	mg/kg	04.07.2020 21:29		1
Diesel Range Organics (DRO)	C10C28DRO	**3350**	50.1	mg/kg	04.07.2020 21:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**276**	50.1	mg/kg	04.07.2020 21:29		1
Total GRO-DRO	PHC628	**4420**	50.1	mg/kg	04.07.2020 21:29		1
Total TPH	PHC635	**4700**	50.1	mg/kg	04.07.2020 21:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	04.07.2020 21:29	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 21:29	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-005	Date Collected:	04.02.2020 11:57	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**2.76**	0.200	mg/kg	04.07.2020 19:03		100
Toluene	108-88-3	**22.0**	0.200	mg/kg	04.07.2020 19:03		100
Ethylbenzene	100-41-4	**11.7**	0.200	mg/kg	04.07.2020 19:03		100
m,p-Xylenes	179601-23-1	**21.2**	0.400	mg/kg	04.07.2020 19:03		100
o-Xylene	95-47-6	**9.14**	0.200	mg/kg	04.07.2020 19:03		100
Total Xylenes	1330-20-7	**30.3**	0.200	mg/kg	04.07.2020 19:03		100
Total BTEX		**66.8**	0.200	mg/kg	04.07.2020 19:03		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 19:03	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.07.2020 19:03	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-006	Date Collected:	04.02.2020 12:24	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.08.2020 09:10	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 19:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 19:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 19:07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 19:07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 19:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 19:07	
o-Terphenyl	84-15-1	113	%	70-135	04.07.2020 19:07	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-006	Date Collected:	04.02.2020 12:24	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 19:44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 19:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.07.2020 19:44	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.07.2020 19:44	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-007	Date Collected:	04.06.2020 09:02	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.2**	9.88	mg/kg	04.08.2020 09:16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 19:27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 19:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.07.2020 19:27	
o-Terphenyl	84-15-1	113	%	70-135	04.07.2020 19:27	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-007	Date Collected:	04.06.2020 09:02	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 20:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 20:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.07.2020 20:04	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.07.2020 20:04	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-008	Date Collected:	04.06.2020 09:23	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.5**	9.98	mg/kg	04.08.2020 09:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122322				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 19:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 19:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 19:47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 19:47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 19:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 19:47	
o-Terphenyl	84-15-1	114	%	70-135	04.07.2020 19:47	

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Severus CTB

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-008	Date Collected:	04.06.2020 09:23	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 20:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 20:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.07.2020 20:25	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.07.2020 20:25	

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Severus CTB

Sample Id: **BH05** Matrix: Soil Date Received:04.07.2020 08:25
Lab Sample Id: 658081-009 Date Collected: 04.06.2020 09:38 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 04.07.2020 14:40 Basis: Wet Weight
Seq Number: 3122329

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.5**	9.96	mg/kg	04.08.2020 09:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
Seq Number: 3122322

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 20:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 20:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 20:08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 20:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 20:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 20:08	
o-Terphenyl	84-15-1	112	%	70-135	04.07.2020 20:08	

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Severus CTB

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-009	Date Collected:	04.06.2020 09:38	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 10:36	Basis:	Wet Weight
Seq Number:	3122298				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 20:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 20:45	
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.07.2020 20:45	

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Severus CTB

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-010	Date Collected:	04.06.2020 09:43	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**57.0**	9.96	mg/kg	04.08.2020 09:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.07.2020 15:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.07.2020 15:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.07.2020 15:42	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.07.2020 15:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.07.2020 15:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	04.07.2020 15:42	
o-Terphenyl	84-15-1	114	%	70-135	04.07.2020 15:42	

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Severus CTB

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-010	Date Collected:	04.06.2020 09:43	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 14:55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 14:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.07.2020 14:55	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 14:55	

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Severus CTB

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-011	Date Collected:	04.06.2020 10:03	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.2**	10.0	mg/kg	04.08.2020 09:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.07.2020 16:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.07.2020 16:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.07.2020 16:03	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.07.2020 16:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.07.2020 16:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	04.07.2020 16:03	
o-Terphenyl	84-15-1	111	%	70-135	04.07.2020 16:03	

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Severus CTB

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-011	Date Collected:	04.06.2020 10:03	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.07.2020 15:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 15:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.07.2020 15:15	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 15:15	

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Severus CTB

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-012	Date Collected:	04.06.2020 10:07	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.7**	9.94	mg/kg	04.08.2020 09:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 14:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 14:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 14:41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 14:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 14:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	04.07.2020 14:41	
o-Terphenyl	84-15-1	112	%	70-135	04.07.2020 14:41	

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Severus CTB

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-012	Date Collected:	04.06.2020 10:07	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.07.2020 14:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.07.2020 14:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 14:35	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 14:35	

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Severus CTB

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-013	Date Collected:	04.06.2020 10:44	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**42.5**	10.1	mg/kg	04.08.2020 09:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.07.2020 16:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.07.2020 16:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.07.2020 16:23	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.07.2020 16:23	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.07.2020 16:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	04.07.2020 16:23	
o-Terphenyl	84-15-1	108	%	70-135	04.07.2020 16:23	

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Severus CTB

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-013	Date Collected:	04.06.2020 10:44	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 15:36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 15:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.07.2020 15:36	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 15:36	

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Severus CTB

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-014	Date Collected:	04.06.2020 10:46	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	04.08.2020 09:54	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.07.2020 16:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.07.2020 16:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.07.2020 16:44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.07.2020 16:44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.07.2020 16:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	04.07.2020 16:44	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 16:44	

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Severus CTB

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-014	Date Collected:	04.06.2020 10:46	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 15:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 15:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 15:56	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 15:56	

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Severus CTB

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-015	Date Collected:	04.06.2020 11:09	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.8**	10.0	mg/kg	04.08.2020 10:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 17:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 17:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 17:04	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 17:04	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 17:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	04.07.2020 17:04	
o-Terphenyl	84-15-1	118	%	70-135	04.07.2020 17:04	

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Severus CTB

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-015	Date Collected:	04.06.2020 11:09	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 16:16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 16:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 16:16	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 16:16	

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Severus CTB

Sample Id:	**BH08A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-016	Date Collected:	04.06.2020 11:12	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.9**	10.1	mg/kg	04.08.2020 10:27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 17:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	04.07.2020 17:25	
o-Terphenyl	84-15-1	115	%	70-135	04.07.2020 17:25	

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Severus CTB

Sample Id:	**BH08A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-016	Date Collected:	04.06.2020 11:12	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.07.2020 16:37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 16:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 16:37	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 16:37	

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Severus CTB

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-017	Date Collected:	04.06.2020 11:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**104**	9.92	mg/kg	04.08.2020 10:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.07.2020 17:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.07.2020 17:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.07.2020 17:45	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	04.07.2020 17:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.07.2020 17:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 17:45	
o-Terphenyl	84-15-1	109	%	70-135	04.07.2020 17:45	

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Severus CTB

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-017	Date Collected:	04.06.2020 11:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.07.2020 16:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.07.2020 16:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 16:57	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 16:57	

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Severus CTB

Sample Id:	**BH09A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-018	Date Collected:	04.06.2020 11:48	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.08.2020 10:38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.07.2020 18:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.07.2020 18:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.07.2020 18:05	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.07.2020 18:05	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.07.2020 18:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	04.07.2020 18:05	
o-Terphenyl	84-15-1	113	%	70-135	04.07.2020 18:05	

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Severus CTB

Sample Id:	**BH09A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-018	Date Collected:	04.06.2020 11:48	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.07.2020 17:18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.07.2020 17:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.07.2020 17:18	
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.07.2020 17:18	

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Severus CTB

Sample Id:	**BH010**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-019	Date Collected:	04.06.2020 12:06	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:40	Basis:	Wet Weight
Seq Number:	3122329				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.2**	9.98	mg/kg	04.08.2020 10:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**11100**	503	mg/kg	04.08.2020 10:03		10
Diesel Range Organics (DRO)	C10C28DRO	**24300**	503	mg/kg	04.08.2020 10:03		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**2970**	503	mg/kg	04.08.2020 10:03		10
Total GRO-DRO	PHC628	**35400**	503	mg/kg	04.08.2020 10:03		10
Total TPH	PHC635	**38400**	503	mg/kg	04.08.2020 10:03		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.08.2020 10:03	
o-Terphenyl	84-15-1	124	%	70-135	04.08.2020 10:03	

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Severus CTB

Sample Id:	**BH010**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-019	Date Collected:	04.06.2020 12:06	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**39.2**	1.00	mg/kg	04.08.2020 09:49		500
Toluene	108-88-3	**167**	1.00	mg/kg	04.08.2020 09:49		500
Ethylbenzene	100-41-4	**75.6**	1.00	mg/kg	04.08.2020 09:49		500
m,p-Xylenes	179601-23-1	**217**	2.00	mg/kg	04.08.2020 09:49		500
o-Xylene	95-47-6	**74.3**	1.00	mg/kg	04.08.2020 09:49		500
Total Xylenes	1330-20-7	**291**	1.00	mg/kg	04.08.2020 09:49		500
Total BTEX		**573**	1.00	mg/kg	04.08.2020 09:49		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	04.08.2020 09:49	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.08.2020 09:49	

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Severus CTB

Sample Id:	**BH010A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-020	Date Collected:	04.06.2020 12:34	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.07.2020 19:38	UX	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 18:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 18:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 18:26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 18:26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 18:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	04.07.2020 18:26	
o-Terphenyl	84-15-1	113	%	70-135	04.07.2020 18:26	

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Severus CTB

Sample Id:	**BH010A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-020	Date Collected:	04.06.2020 12:34	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00244**	0.00202	mg/kg	04.07.2020 19:20		1
Toluene	108-88-3	**0.00537**	0.00202	mg/kg	04.07.2020 19:20		1
Ethylbenzene	100-41-4	**0.00381**	0.00202	mg/kg	04.07.2020 19:20		1
m,p-Xylenes	179601-23-1	**0.00712**	0.00404	mg/kg	04.07.2020 19:20		1
o-Xylene	95-47-6	**0.00493**	0.00202	mg/kg	04.07.2020 19:20		1
Total Xylenes	1330-20-7	**0.0121**	0.00202	mg/kg	04.07.2020 19:20		1
Total BTEX		**0.0237**	0.00202	mg/kg	04.07.2020 19:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	04.07.2020 19:20	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.07.2020 19:20	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH011**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-021	Date Collected:	04.06.2020 14:54	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	04.07.2020 19:55	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.07.2020 19:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.07.2020 19:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.07.2020 19:07	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.07.2020 19:07	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.07.2020 19:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	04.07.2020 19:07	
o-Terphenyl	84-15-1	121	%	70-135	04.07.2020 19:07	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH011**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-021	Date Collected:	04.06.2020 14:54	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.07.2020 19:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.07.2020 19:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.07.2020 19:40	U	1
m,p-Xylenes	179601-23-1	**0.0165**	0.00398	mg/kg	04.07.2020 19:40		1
o-Xylene	95-47-6	**0.0125**	0.00199	mg/kg	04.07.2020 19:40		1
Total Xylenes	1330-20-7	**0.0290**	0.00199	mg/kg	04.07.2020 19:40		1
Total BTEX		**0.0290**	0.00199	mg/kg	04.07.2020 19:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.07.2020 19:40	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.07.2020 19:40	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id: **BH011A** Matrix: Soil Date Received:04.07.2020 08:25
Lab Sample Id: 658081-022 Date Collected: 04.06.2020 14:57 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 04.07.2020 14:42 Basis: Wet Weight
Seq Number: 3122308

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	04.07.2020 20:01	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 04.07.2020 14:00 Basis: Wet Weight
Seq Number: 3122337

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	04.07.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	04.07.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	04.07.2020 19:27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	04.07.2020 19:27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	04.07.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	04.07.2020 19:27	
o-Terphenyl	84-15-1	118	%	70-135	04.07.2020 19:27	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH011A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-022	Date Collected:	04.06.2020 14:57	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.07.2020 20:01	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.07.2020 20:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	04.07.2020 20:01	
1,4-Difluorobenzene	540-36-3	89	%	70-130	04.07.2020 20:01	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH012**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-023	Date Collected:	04.06.2020 15:03	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3820**	9.98	mg/kg	04.07.2020 20:07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.07.2020 19:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.07.2020 19:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.07.2020 19:47	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	04.07.2020 19:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.07.2020 19:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	04.07.2020 19:47	
o-Terphenyl	84-15-1	120	%	70-135	04.07.2020 19:47	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH012**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-023	Date Collected:	04.06.2020 15:03	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.07.2020 20:21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.07.2020 20:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.07.2020 20:21	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 20:21	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH012A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-024	Date Collected:	04.06.2020 15:07	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.3**	10.1	mg/kg	04.07.2020 20:12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.07.2020 20:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.07.2020 20:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.07.2020 20:08	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	04.07.2020 20:08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.07.2020 20:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	04.07.2020 20:08	
o-Terphenyl	84-15-1	117	%	70-135	04.07.2020 20:08	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH012A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-024	Date Collected:	04.06.2020 15:07	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	04.07.2020 20:41	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1
Total BTEX		<0.0100	0.0100	mg/kg	04.07.2020 20:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.07.2020 20:41	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.07.2020 20:41	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH013**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-025	Date Collected:	04.06.2020 15:16	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.7**	10.1	mg/kg	04.07.2020 20:18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.07.2020 20:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.07.2020 20:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.07.2020 20:28	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.07.2020 20:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.07.2020 20:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	04.07.2020 20:28	
o-Terphenyl	84-15-1	121	%	70-135	04.07.2020 20:28	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH013**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-025	Date Collected:	04.06.2020 15:16	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.07.2020 21:02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.07.2020 21:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.07.2020 21:02	
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.07.2020 21:02	

Certificate of Analytical Results 658081

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH013A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-026	Date Collected:	04.06.2020 15:17	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 14:42	Basis:	Wet Weight
Seq Number:	3122308				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<50.2	50.2	mg/kg	04.07.2020 20:36	U	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.07.2020 14:00	Basis:	Wet Weight
Seq Number:	3122337				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	04.07.2020 20:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	04.07.2020 20:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	04.07.2020 20:48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	04.07.2020 20:48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	04.07.2020 20:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	04.07.2020 20:48	
o-Terphenyl	84-15-1	108	%	70-135	04.07.2020 20:48	

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LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**BH013A**	Matrix:	Soil	Date Received:	04.07.2020 08:25
Lab Sample Id:	658081-026	Date Collected:	04.06.2020 15:17	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.07.2020 11:25	Basis:	Wet Weight
Seq Number:	3122299				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.07.2020 21:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.07.2020 21:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	04.07.2020 21:22	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.07.2020 21:22	

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

QC Summary 658081

LT Environmental, Inc.

Severus CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700731-1-BLK — LCS Sample Id: 7700731-1-BKS — LCSD Sample Id: 7700731-1-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	273	109	253	101	90-110	8	20	mg/kg	04.08.2020 08:04	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122308 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700732-1-BLK — LCS Sample Id: 7700732-1-BKS — LCSD Sample Id: 7700732-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	268	107	90-110	2	20	mg/kg	04.07.2020 19:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658078-004 — MS Sample Id: 658078-004 S — MSD Sample Id: 658078-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.6	199	240	105	240	105	90-110	0	20	mg/kg	04.08.2020 08:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122329 — Matrix: Solid — Date Prep: 04.07.2020
Parent Sample Id: 658081-014 — MS Sample Id: 658081-014 S — MSD Sample Id: 658081-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	216	108	221	109	90-110	2	20	mg/kg	04.08.2020 10:10	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122308 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658081-020 — MS Sample Id: 658081-020 S — MSD Sample Id: 658081-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	212	106	220	111	90-110	4	20	mg/kg	04.07.2020 19:43	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3122308 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658202-001 — MS Sample Id: 658202-001 S — MSD Sample Id: 658202-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	400	200	612	106	612	106	90-110	0	20	mg/kg	04.07.2020 21:06	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 658081

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700752-1-BLK — LCS Sample Id: 7700752-1-BKS — LCSD Sample Id: 7700752-1-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	984	98	999	100	70-135	2	35	mg/kg	04.07.2020 14:00	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1150	115	70-135	1	35	mg/kg	04.07.2020 14:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		124		126		70-135	%	04.07.2020 14:00
o-Terphenyl	116		124		126		70-135	%	04.07.2020 14:00

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122337 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700753-1-BLK — LCS Sample Id: 7700753-1-BKS — LCSD Sample Id: 7700753-1-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	821	82	893	89	70-135	8	35	mg/kg	04.07.2020 14:00	
Diesel Range Organics (DRO)	<50.0	1000	819	82	917	92	70-135	11	35	mg/kg	04.07.2020 14:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		111		120		70-135	%	04.07.2020 14:00
o-Terphenyl	93		90		102		70-135	%	04.07.2020 14:00

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700752-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.07.2020 13:40	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122337 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700753-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.07.2020 13:40	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 658081

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122322 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658074-001 — MS Sample Id: 658074-001 S — MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	1030	102	70-135	3	35	mg/kg	04.07.2020 15:01	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1110	110	70-135	8	35	mg/kg	04.07.2020 15:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		130		70-135	%	04.07.2020 15:01
o-Terphenyl	128		133		70-135	%	04.07.2020 15:01

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3122337 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658081-012 — MS Sample Id: 658081-012 S — MSD Sample Id: 658081-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1020	102	1010	101	70-135	1	35	mg/kg	04.07.2020 15:01	
Diesel Range Organics (DRO)	<50.1	1000	1080	108	1080	108	70-135	0	35	mg/kg	04.07.2020 15:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		113		70-135	%	04.07.2020 15:01
o-Terphenyl	115		113		70-135	%	04.07.2020 15:01

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122298 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700729-1-BLK — LCS Sample Id: 7700729-1-BKS — LCSD Sample Id: 7700729-1-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	0.0985	99	70-130	3	35	mg/kg	04.07.2020 11:34	
Toluene	<0.00200	0.100	0.0961	96	0.0940	94	70-130	2	35	mg/kg	04.07.2020 11:34	
Ethylbenzene	<0.00200	0.100	0.0902	90	0.0879	88	71-129	3	35	mg/kg	04.07.2020 11:34	
m,p-Xylenes	<0.00400	0.200	0.184	92	0.181	91	70-135	2	35	mg/kg	04.07.2020 11:34	
o-Xylene	<0.00200	0.100	0.0940	94	0.0919	92	71-133	2	35	mg/kg	04.07.2020 11:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		105		105		70-130	%	04.07.2020 11:34
4-Bromofluorobenzene	94		94		92		70-130	%	04.07.2020 11:34

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 658081

LT Environmental, Inc.

Severus CTB

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122299 — Matrix: Solid — Date Prep: 04.07.2020
MB Sample Id: 7700727-1-BLK — LCS Sample Id: 7700727-1-BKS — LCSD Sample Id: 7700727-1-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	0.122	122	0.113	113	70-130	8	35	mg/kg	04.07.2020 12:32	
Toluene	<0.00200	0.100	0.111	111	0.102	102	70-130	8	35	mg/kg	04.07.2020 12:32	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0936	94	71-129	9	35	mg/kg	04.07.2020 12:32	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.181	91	70-135	9	35	mg/kg	04.07.2020 12:32	
o-Xylene	<0.00200	0.100	0.101	101	0.0932	93	71-133	8	35	mg/kg	04.07.2020 12:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		108		70-130	%	04.07.2020 12:32
4-Bromofluorobenzene	91		86		83		70-130	%	04.07.2020 12:32

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122298 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658074-001 — MS Sample Id: 658074-001 S — MSD Sample Id: 658074-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.113	114	0.0959	96	70-130	16	35	mg/kg	04.07.2020 12:15	
Toluene	0.00845	0.0994	0.118	110	0.110	102	70-130	7	35	mg/kg	04.07.2020 12:15	
Ethylbenzene	0.0129	0.0994	0.111	99	0.113	101	71-129	2	35	mg/kg	04.07.2020 12:15	
m,p-Xylenes	0.0234	0.199	0.231	104	0.238	108	70-135	3	35	mg/kg	04.07.2020 12:15	
o-Xylene	0.0195	0.0994	0.123	104	0.117	98	71-133	5	35	mg/kg	04.07.2020 12:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		98		70-130	%	04.07.2020 12:15
4-Bromofluorobenzene	98		95		70-130	%	04.07.2020 12:15

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3122299 — Matrix: Soil — Date Prep: 04.07.2020
Parent Sample Id: 658081-012 — MS Sample Id: 658081-012 S — MSD Sample Id: 658081-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.131	130	0.130	130	70-130	1	35	mg/kg	04.07.2020 13:13	
Toluene	<0.00201	0.101	0.120	119	0.118	118	70-130	2	35	mg/kg	04.07.2020 13:13	
Ethylbenzene	<0.00201	0.101	0.111	110	0.109	109	71-129	2	35	mg/kg	04.07.2020 13:13	
m,p-Xylenes	<0.00402	0.201	0.215	107	0.211	106	70-135	2	35	mg/kg	04.07.2020 13:13	
o-Xylene	<0.00201	0.101	0.108	107	0.106	106	71-133	2	35	mg/kg	04.07.2020 13:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		109		70-130	%	04.07.2020 13:13
4-Bromofluorobenzene	85		87		70-130	%	04.07.2020 13:13

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

XENCO LABORATORIES

Chain of Custody

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

Work Order No: 658081

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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
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

		Turn Around	
Project Name:	Severus CTB	Routine	☑
Project Number:	012920027	Rush:	
P.O. Number:			
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	26

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH01	S	04/02/20	1102	2'	1	X	X	X	discrete
BH01A	↓	↓	1104	3'	↓	X	X	X	↓
BH02			1107	3'		X	X	X	
BH02A			1108	4'		X	X	X	
BH03			1157	0.5'		X	X	X	
BH03A		↓	1224	4'		X	X	X	
BH04		04/06/20	0903	0.5'		X	X	X	
BH04A		↓	0923	3'		X	X	X	
BH05			0938	0.5'		X	X	X	
BH05A	↓	↓	0943	3'	↓	X	X	X	↓

Work Order Notes

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

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

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

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
[signature]	[signature]	4/7/20 / 8:00am	2 [signature]	[signature]	4/7/20 08:25
			4		
			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 658081

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610 Email:		dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Sevens CTB	Turn Around	
Project Number:	012920027	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH06	S	04/06/20	1003	0.5'	1	X	X	X	discrete
BH06A			1007	3'		X	X	X	
BH07			1044	2'		X	X	X	
BH07A			1046	3'		X	X	X	
BH08			1109	2'		X	X	X	
BH08A			1112	3'		X	X	X	
BH09			1145	1'		X	X	X	
BH09A			1148	3'		X	X	X	
BH10			1206	0.5'		X	X	X	
BH10A			1234	5'		X	X	X	

Work Order Notes

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

ANALYSIS REQUEST

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Robert McAfee		4/7/20 4:00 pm	2		4/7/20 08:25
			4		
			6		

XENCO LABORATORIES

Chain of Custody

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

Work Order No: 658081

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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
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Severus CTB	Turn Around	
Project Number:	012920027	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT

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

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH11	S	04/06/20	1454	2'	1	X	X	X	
BH11A	↓	↓	1457	3'	↓	X	X	X	
BH12	↓	↓	1503	0.5'	↓	X	X	X	
BH12A	↓	↓	1507	3'	↓	X	X	X	
BH13	↓	↓	1516	2'	↓	X	X	X	
BH13A	↓	↓	1517	3'	↓	X	X	X	

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

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

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
[signature]	[signature]	4/7/20 8:00am	2 [signature]	[signature]	4/7/20 08:25
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.07.2020 08.25.00 AM

Work Order #: 658081

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.07.2020

Checklist reviewed by: Jessica Kramer Date: 04.07.2020

Jessica Kramer

Analytical Report 658796

for

LT Environmental, Inc.

Project Manager: Dan Moir

Severus CTB

012920027

04.15.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.15.2020

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

Reference: XENCO Report No(s): **658796**
Severus 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) 658796. 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. 658796 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 658796

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW11	S	04.14.2020 10:00	0 - 2 ft	658796-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Severus CTB

Project ID: *012920027*
Work Order Number(s): *658796*

Report Date: *04.15.2020*
Date Received: *04.14.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123048 BTEX by EPA 8021B

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

Certificate of Analysis Summary 658796

LT Environmental, Inc., Arvada, CO

Project Name: Severus CTB

Project Id: 012920027
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 04.14.2020 15:23
Report Date: 04.15.2020 13:02
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	658796-001					
	Field Id:	SW11					
	Depth:	0-2 ft					
	Matrix:	SOIL					
	Sampled:	04.14.2020 10:00					
BTEX by EPA 8021B	***Extracted:***	04.14.2020 16:00					
	Analyzed:	04.14.2020 19:35					
	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:***	04.14.2020 16:30					
	Analyzed:	04.14.2020 18:08					
	Units/RL:	mg/kg	RL				
Chloride		18.0	9.98				
TPH by SW8015 Mod	***Extracted:***	04.14.2020 17:10					
	Analyzed:	04.14.2020 19:33					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1				
Diesel Range Organics (DRO)		<50.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1				
Total GRO-DRO		<50.1	50.1				
Total TPH		<50.1	50.1				

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 658796

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	04.14.2020 15:23
Lab Sample Id:	658796-001	Date Collected:	04.14.2020 10:00	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.14.2020 16:30	Basis:	Wet Weight
Seq Number:	3123050				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.0**	9.98	mg/kg	04.14.2020 18:08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	04.14.2020 17:10	Basis:	Wet Weight
Seq Number:	3123060				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	04.14.2020 19:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	04.14.2020 19:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	04.14.2020 19:33	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	04.14.2020 19:33	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	04.14.2020 19:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.14.2020 19:33	
o-Terphenyl	84-15-1	101	%	70-135	04.14.2020 19:33	

Certificate of Analytical Results 658796

LT Environmental, Inc., Arvada, CO

Severus CTB

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	04.14.2020 15:23
Lab Sample Id:	658796-001	Date Collected:	04.14.2020 10:00	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	04.14.2020 16:00	Basis:	Wet Weight
Seq Number:	3123048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 19:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.14.2020 19:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.14.2020 19:35	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.14.2020 19:35	

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

QC Summary 658796

LT Environmental, Inc.

Severus CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3123050 — Matrix: Solid — Date Prep: 04.14.2020
MB Sample Id: 7701289-1-BLK — LCS Sample Id: 7701289-1-BKS — LCSD Sample Id: 7701289-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	04.14.2020 17:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3123050 — Matrix: Soil — Date Prep: 04.14.2020
Parent Sample Id: 658796-001 — MS Sample Id: 658796-001 S — MSD Sample Id: 658796-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.0	200	222	102	224	103	90-110	1	20	mg/kg	04.14.2020 18:13	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3123050 — Matrix: Soil — Date Prep: 04.14.2020
Parent Sample Id: 658815-007 — MS Sample Id: 658815-007 S — MSD Sample Id: 658815-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	269	198	479	106	480	107	90-110	0	20	mg/kg	04.14.2020 19:30	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3123060 — Matrix: Solid — Date Prep: 04.14.2020
MB Sample Id: 7701297-1-BLK — LCS Sample Id: 7701297-1-BKS — LCSD Sample Id: 7701297-1-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	04.14.2020 13:59	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	04.14.2020 13:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		113		110		70-135	%	04.14.2020 13:59
o-Terphenyl	115		110		107		70-135	%	04.14.2020 13:59

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3123060 — Matrix: Solid — Date Prep: 04.14.2020
MB Sample Id: 7701297-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.14.2020 13:39	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 658796

LT Environmental, Inc.

Severus CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3123060 — Matrix: Soil — Date Prep: 04.14.2020
Parent Sample Id: 658797-001 — MS Sample Id: 658797-001 S — MSD Sample Id: 658797-001 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	995	100	1000	100	70-135	1	35	mg/kg	04.14.2020 18:52	
Diesel Range Organics (DRO)	<50.1	1000	1150	115	1140	114	70-135	1	35	mg/kg	04.14.2020 18:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		116		70-135	%	04.14.2020 18:52
o-Terphenyl	115		111		70-135	%	04.14.2020 18:52

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3123048 — Matrix: Solid — Date Prep: 04.14.2020
MB Sample Id: 7701300-1-BLK — LCS Sample Id: 7701300-1-BKS — LCSD Sample Id: 7701300-1-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	0.122	122	0.127	127	70-130	4	35	mg/kg	04.14.2020 17:32	
Toluene	<0.00200	0.100	0.111	111	0.116	116	70-130	4	35	mg/kg	04.14.2020 17:32	
Ethylbenzene	<0.00200	0.100	0.102	102	0.107	107	71-129	5	35	mg/kg	04.14.2020 17:32	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.207	104	70-135	6	35	mg/kg	04.14.2020 17:32	
o-Xylene	<0.00200	0.100	0.101	101	0.106	106	71-133	5	35	mg/kg	04.14.2020 17:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		107		108		70-130	%	04.14.2020 17:32
4-Bromofluorobenzene	89		85		86		70-130	%	04.14.2020 17:32

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3123048 — Matrix: Soil — Date Prep: 04.14.2020
Parent Sample Id: 658796-001 — MS Sample Id: 658796-001 S — MSD Sample Id: 658796-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.126	126	0.129	129	70-130	2	35	mg/kg	04.14.2020 18:13	
Toluene	<0.00200	0.100	0.116	116	0.118	118	70-130	2	35	mg/kg	04.14.2020 18:13	
Ethylbenzene	<0.00200	0.100	0.108	108	0.110	110	71-129	2	35	mg/kg	04.14.2020 18:13	
m,p-Xylenes	<0.00401	0.200	0.209	105	0.214	107	70-135	2	35	mg/kg	04.14.2020 18:13	
o-Xylene	<0.00200	0.100	0.105	105	0.107	107	71-133	2	35	mg/kg	04.14.2020 18:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	04.14.2020 18:13
4-Bromofluorobenzene	87		88		70-130	%	04.14.2020 18:13

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

Chain of Custody

Work Order No: 658796

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

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Severus CTB	Turn Around	
Project Number:	012920027	Routine	☑
P.O. Number:	NRM2004157714	Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2-2	Thermometer ID		
Received Intact:	(Yes) No		TNM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0-2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SW11	S	04/14/20	1000	0-2'	1	X	X	X	composite

ANALYSIS REQUEST

Work Order Notes

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

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

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

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
Robert McAfee		4/14/20 15:23	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04.14.2020 03.23.00 PM

Work Order #: 658796

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 04.14.2020

Checklist reviewed by: Jessica Kramer Date: 04.15.2020

Jessica Kramer

ATTACHMENT 3: LITHOLOGIC / SOIL SAMPLING LOG

RM

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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BH or PH Name: ~~BH00~~ BH01 Date: 04/23/2020
Site Name: Severus CTB
RP or Incident Number:
LTE Job Number:
Logged By: Robert M. Method: Hand Auger
Hole Diameter: 3" Total Depth: 3'
Lat/Long: Field Screening: Chloride, PID
Comments:

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
1219 D	<124	157	N		1'	1	S	SP-SC Brown small round grain
1221 M	<124	185	N		2'	2	S	
1224 D	<124	32	N		3'	3	S	
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

RW

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BH or PH Name: ~~BH02~~ BH02	Date: 04/23/2020
Site Name: Severus CTB	
RP or Incident Number:	
LTE Job Number:	
Logged By: Robert M.	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 3'
Lat/Long:	Field Screening: Chloride, PID

Comments:

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
1229 M	<124	2.7	N		1'	0 1	S	SP-SC Brown small round grain
M	<124	0.5	N		2'	2	S	
M	<124	0.1	N		3'	3 4 5 6 7 8 9 10 11 12	S	

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BH or PH Name: ~~BH003~~ BH03	Date: 04/23/2020
Site Name: Seversus CTB	
RP or Incident Number:	
LTE Job Number:	
Logged By: Robert M	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 3'
Lat/Long:	Field Screening: Chloride, PID

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<124	1.8	N		1'	1	S	SP-SC Brown small round grain
M	<124	0.1	N		2'	2	S	
M	<124	0.1	N		3'	3	S	
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

BM

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BH or PH Name: ~~BH004~~ BH04	Date: 04/23/2020
Site Name: Secrus CTB	
RP or Incident Number:	
LTE Job Number:	
Logged By: Robert M.	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 3'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<124	100	N		1'	1	S	SP-SC Brown small round grain
D	<124	7.2	N		2'	2	S	
D	<124	4.0	N		3'	3	S	
						4		
						5		
						6		
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						9		
						10		
						11		
						12		

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BH or PH Name: ~~BH05~~ BH05	Date: 04/23/2020
Site Name: Scrubs CTB	
RP or Incident Number:	
LTE Job Number:	
Logged By: Robert M.	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 3'
Lat/Long:	Field Screening: Chloride, PID

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	<124	21	N		1'	1	S	SP-SM Brown
D	<124	18	N		2'	2	S	
D	<124	9.8	N		3'	3	S	
						4		
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						9		
						10		
						11		
						12		

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BH or PH Name: ~~BH006~~ BH06	Date: 04/23/2020
Site Name: Stevens CTB	
RP or Incident Number:	
LTE Job Number:	
Logged By: Robert M	Method: Hand Auger
Hole Diameter: 3"	Total Depth: 3'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<124	0.1	N		1'	1	S	SP-SM Brown
M	<124	0.3	N		2'	2	S	SP-SM Brown
D	<124	0.4	N		3'	3	S	SP-SC Brown
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		