A proud member of WSP

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

March 10, 2020

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

RE: Closure Request
Goldenchild Central Tank Battery
Remediation Permit Numbers 2RP-4636
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request report detailing site assessment, soil sampling, and excavation activities at the Goldenchild Central Tank Battery (Site), located in Unit P, Section 6, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil after a release of crude oil and produced water at the Site.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing. Based on the laboratory analytical results for soil samples collected at the Site, XTO is submitting this Closure Request, describing remediation activities that have occurred and requesting no further action for the release event.

RELEASE BACKGROUND

On February 10, 2018, the gun barrel tank overflowed due to a plug in the dump line. Approximately 30 barrels (bbls) of oil and 47 bbls of produced water were released within the impermeable lined containment. Areas to the east, west, and north of the containment were affected by overspray. A vacuum truck recovered 28 bbls of oil and 46 bbls of produced water from within the lined containment. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on February 23, 2018, and was assigned Remediation Permit (RP) Number 2RP-4636 (Attachment 1).

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 between 51 and 100 feet below ground surface (bgs) based on the nearest water well data. The closest permitted water well with depth to water data is New Mexico Office of the Sate Engineer (NM OSE) Well #C01880, located approximately 2,760 feet northwest of the Site. According to the NM OSE database, the well was installed and depth to water was measured in 1979. Based on the age of the well, LTE field personnel field-verified the presence or absence of the well. The well could not be located within an approximate 1,000 foot radius of the coordinates provided by the NM OSE. As part of remediation efforts at a nearby site, Corral Canyon #1H flow line (2RP-5201), LTE installed six monitoring wells (MW01 through MW06) to assess depth to groundwater. The groundwater monitoring wells are located approximately 5,986 feet east-southeast of the Site. Static water level measured in monitoring wells MW01 through MW06 on September 13, 2019, ranged from 57.26 feet bgs in monitoring well MW04 to 62.29 feet bgs in monitoring well MW02 with an average depth to water of 58.80 feet bgs. The depth to water measurements are provided in the table below and the location of the monitoring wells is identified on Figure 1.

MONITORING WELL INFORMATION

Sample Name	Total Depth (feet bgs)	Depth to Water (feet bgs)	Sample Date
MW01	68.44	58.17	09/13/2019
MW02	68.10	62.29	09/13/2019
MW03	75.58	58.30	09/13/2019
MW04	69.08	57.26	09/13/2019
MW05	64.80	58.54	09/13/2019
MW06	64.11	58.25	09/13/2019

Notes:
bgs – below ground surface

Based on depth to water measured recently in the nearby monitoring wells, depth to water at the Site is estimated to be between 51 and 100 feet bgs. The closest continuously flowing water or significant watercourse to the Site is the Pecos River, located approximately 1,790 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a medium-potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On February 22, 2018, LTE personnel inspected the Site to evaluate the release extent. All released fluids were recovered from within the lined containment. Surface staining was visible adjacent to, and surrounding the containment. Nine preliminary soil samples (EX-1 through EX-9) were collected within the release area to assess the lateral extent of impacted soil. The preliminary soil sample locations were mapped utilizing a handheld Global Positing System (GPS) unit and are depicted on Figure 2.

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

Between May and August 2018, LTE personnel was at the Site to oversee excavation of impacted soil based on visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation of impacted soil was completed by hand shoveling, hydro-vacuum, and track-hoe. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Excavation of impacted soil was conducted prior to the Compliance Agreement and prior to the implementation of the August 14, 2018, NMOCD modification to 19.15.29. Following removal of impacted soil, excavation confirmation samples were collected as discrete samples instead of composite samples. The area of impacted soil could be visually discerned; therefore, LTE applied a judgmental sampling protocol, selecting sample locations based on visual observation to represent the floor and sidewalls of the

excavation. The sampling protocol complied with Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan, EPA QA/G-5S, December 2002. Soil samples SW01, SW02, SW05, SW6, SW7, SW8, and SW09 through SW11, were collected from the sidewalls of the excavation at depths ranging from 1 foot to 2 feet bgs. Soil samples FS01, FS02, FS03, and FS7 through FS10 were collected from the floor of the excavation at depths ranging from 1 foot to 10 feet bgs. Soil samples SW03, SW04, and FS04 through FS06 were collected for field screening purposes only, and were not submitted for laboratory analysis. Excavation activities proceeded based on field screening activities and laboratory analytical results for the excavation soil samples. Due to urgent operations activities, the excavation was backfilled prior to sampling the final excavation extent.

During December 2019 and February 2020, LTE returned to the site to collect confirmation soil samples from the former excavation extent to better represent the entire excavation and document removal of impacted soil. Additionally, LTE oversaw excavation activities near initial excavation floor sample FS8.

The backfilled excavation extent was well documented, and easily identifiable. Potholes were advanced via backhoe along the perimeter of the backfilled excavation to confirm the lateral extent of impacted soil. Discrete sidewall samples SW12 through SW20 were collected from depths ranging from 1 foot to 2.5 feet bgs from the former sidewalls of the backfilled excavation. Additional potholes were advanced throughout the former floor of the backfilled excavation to confirm the vertical extent of impacted soil. Discrete floor samples FS11 through FS23 were collected from depths ranging from 1 foot to 5.5 feet bgs from the former floor of the backfilled excavation. Soil from the excavation samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.

The excavation soil samples were collected, handled, and analyzed as described above and submitted to Xenco Laboratories in Midland, Texas, for analysis. The excavation extent and excavation soil sample locations are depicted on Figure 3. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 2.

The excavation measured approximately 8,042 square feet in area. A total of approximately 895 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 Landfill located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples EX-1, EX-3, EX-4, and EX-6. Laboratory analytical results indicated that BTEX and/or TPH concentrations exceeded the Closure Criteria in preliminary soil sample EX-2, EX-5, and EX-7 through EX-9 collected at depths

of 0.5 feet to 1 foot bgs. Based on field screening results and laboratory analytical results for the preliminary soil samples, impacted soil was excavated.

Laboratory analytical results for excavation soil samples SW01, SW02, SW05 through SW20, FS01 through FS7, and FS9 through FS23, collected from the final excavation extent, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results indicated that GRO/DRO and TPH concentrations initially exceeded the Closure Criteria in excavation floor sample FS8. Additional soil was removed from the area around floor sample FS8 and subsequent floor sample FS23 was compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Impacted soil was excavated from the Site to address the February 10, 2018, release of crude oil and produced water at the Site. The majority of the release occurred within lined containment and was recovered during initial response activities. Multiple excavation and sampling events occurred over a period during which the NMOCD was revising the spill rule (19.15.29 NMAC). LTE attempted to collect samples that were consistent with the previous work conducted, but in better alignment with the requirements of 19.15.29 NMAC and the Compliance Agreement. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the excavation soil sample analytical results, no further remediation was required.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Number 2RP-4636. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included in Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Aimee Cole
Project Environmental Scientist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Mike Bratcher, NMOCD
Ryan Mann, State Land Office

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-4636)
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Reports

FIGURES

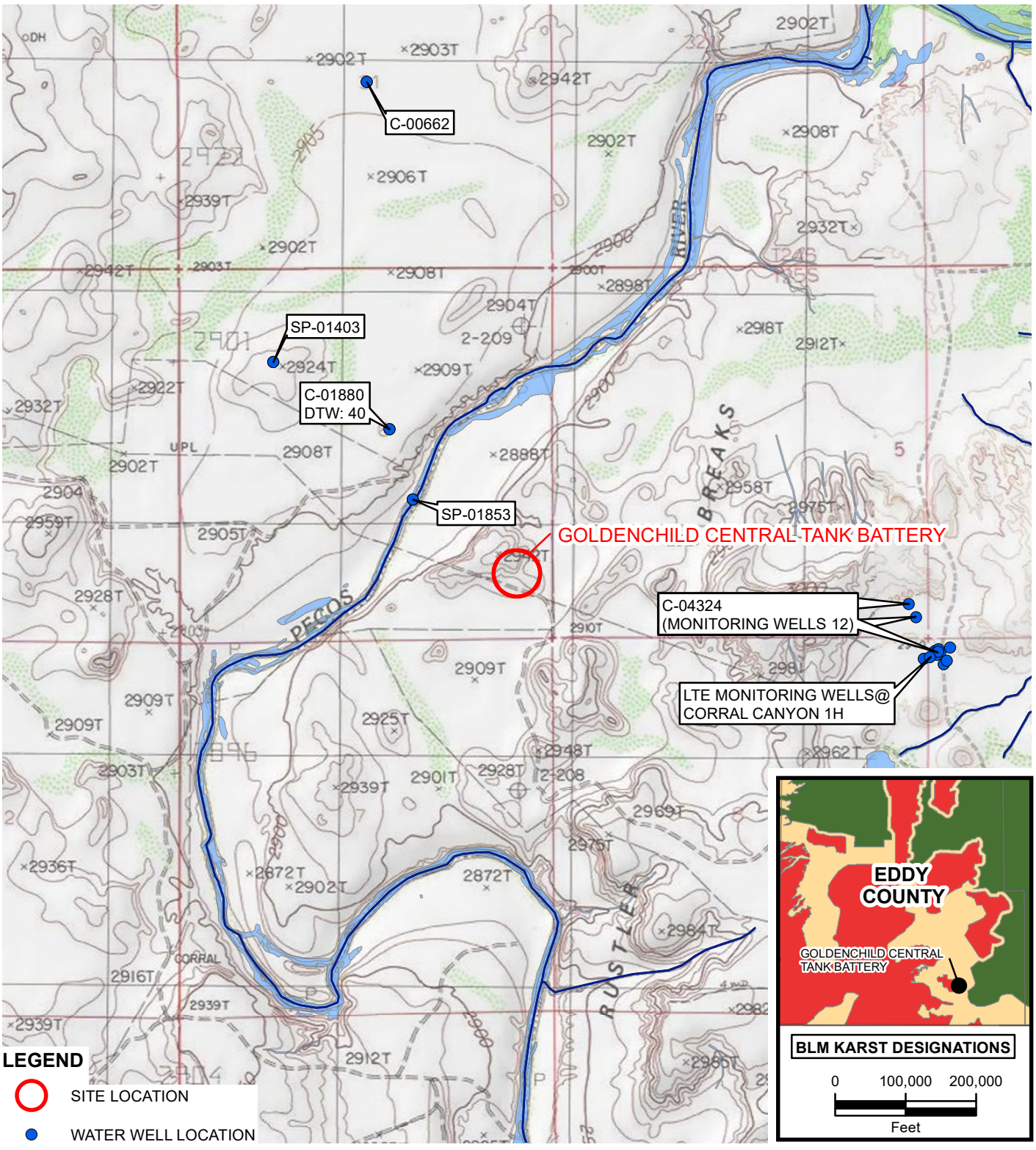
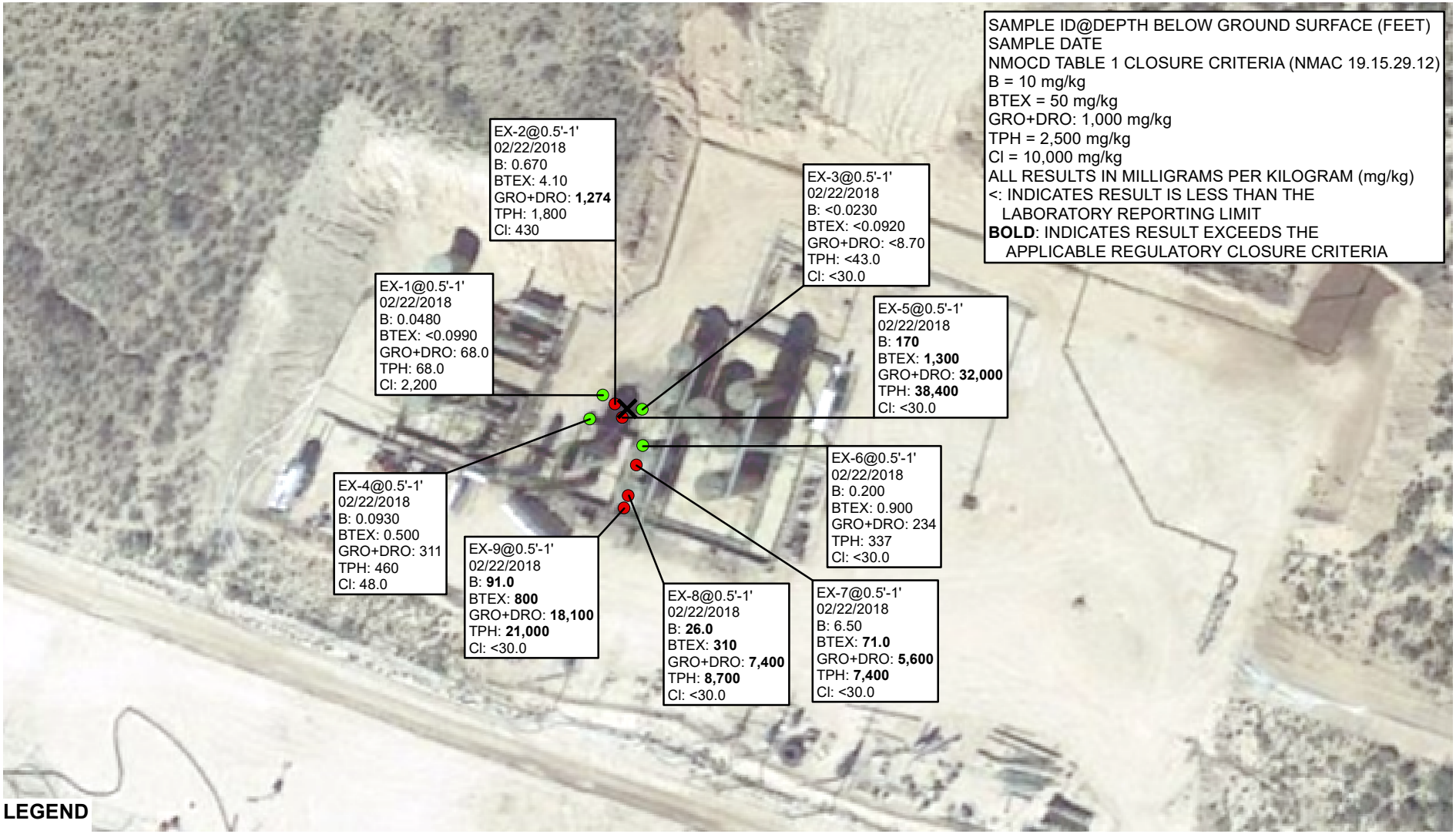


FIGURE 1
SITE LOCATION MAP
GOLDENCHILD CENTRAL TANK BATTERY
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918021_GOLDENCHILD BATTERY\2RP-4636\012918021_FIG01_RECEPTOR_SL_2020.mxd



LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEDING APPLICABLE CLOSURE CRITERIA
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

IMAGE COURTESY OF GOOGLE EARTH 2017

0 80 160
Feet

N

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: REMEDIATION PERMIT NUMBER 2RP-4636

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
GOLDENCHILD CENTRAL TANK BATTERY
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918021_GOLDENCHILD BATTERY\2RP-4636\012918021_FIG02_PRELIMINARY_4636.mxd

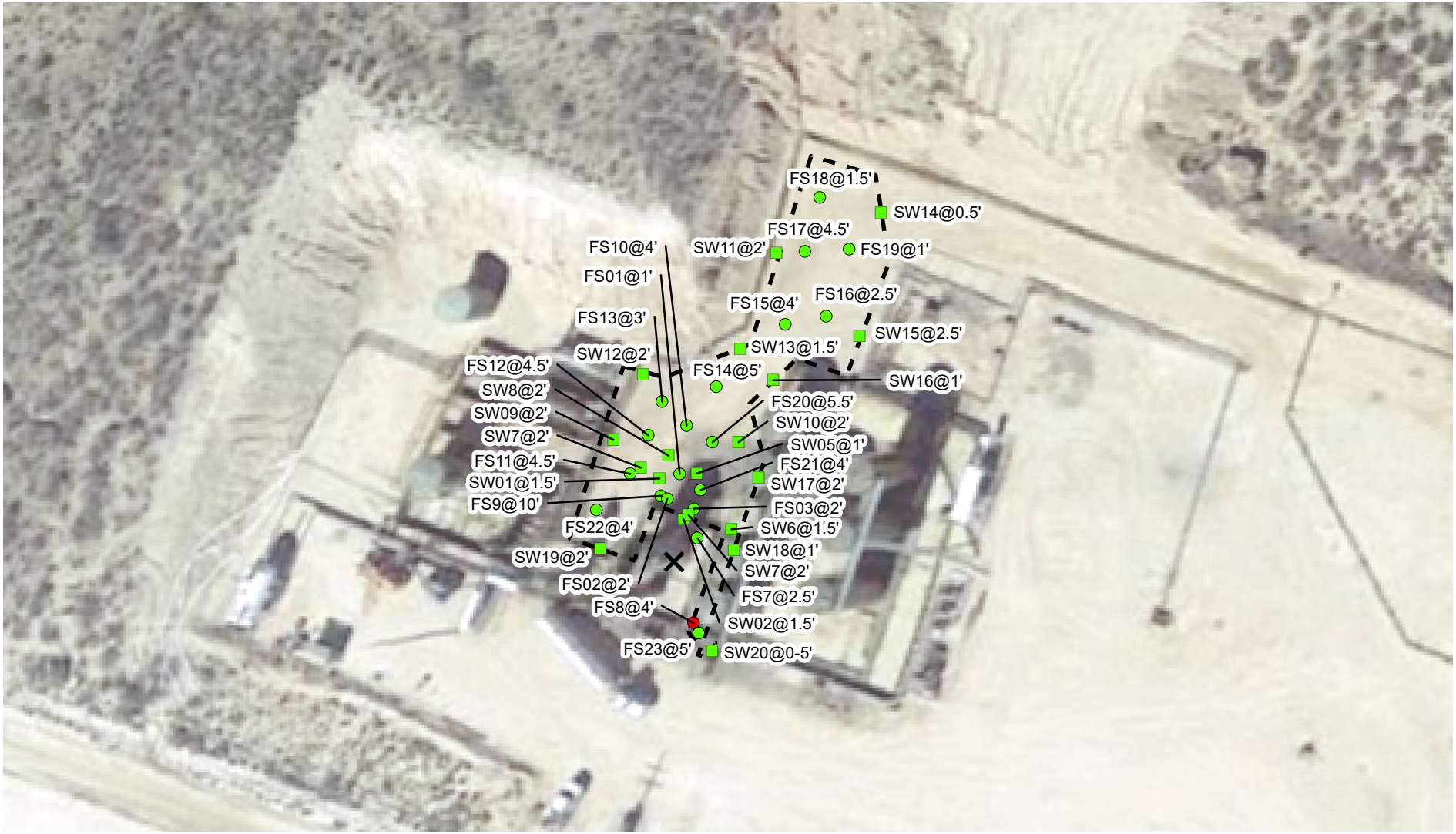


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- EXCAVATION EXTENT
- EXCAVATION FLOOR SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- EXCAVATION FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBER 2RP-4636

0 60 120
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
GOLDENCHILD CENTRAL TANK BATTERY
UNIT P SEC 6 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918021_GOLDENCHILD BATTERY\2RP-4636\012918021_FIG03_EXCAVATION_4636.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

GOLDENCHILD CENTRAL TANK BATTERY
REMEDIATION PERMIT NUMBER 2RP-4636
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
EX-1	0.5-1	02/22/2018	0.0480	<0.0490	<0.0490	<0.0990	0.0990	<4.90	68.0	<49.0	68.0	68.0	2,200
EX-2	0.5-1	02/22/2018	0.670	0.520	0.280	2.60	4.10	74.0	1,200	560	**1,274**	1,800	430
EX-3	0.5-1	02/22/2018	<0.0230	<0.0460	<0.0460	<0.0920	0.0920	<4.60	<8.70	<43.0	<8.70	<43.0	<30.0
EX-4	0.5-1	02/22/2018	0.0930	0.120	<0.0470	0.290	0.500	11.0	300	150	311	460	48.0
EX-5	0.5-1	02/22/2018	**170**	460	90.0	550	**1,300**	13,000	19,000	6,400	**32,000**	**38,400**	<30.0
EX-6	0.5-1	02/22/2018	0.200	0.230	0.0550	0.410	0.900	13.0	230	94.0	243	337	<30.0
EX-7	0.5-1	02/22/2018	6.50	30.0	4.80	30.0	**71.0**	900	4,700	1,800	**5,600**	**7,400**	<30.0
EX-8	0.5-1	02/22/2018	**26.0**	120	21.0	140	**310**	3,500	3,900	1,300	**7,400**	**8,700**	<30.0
EX-9	0.5-1	02/22/2018	**91.0**	320	53.0	340	**800**	8,400	9,700	2,800	**18,100**	**21,000**	<30.0
SW01	1.5	05/24/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	97.1	<15.0	97.1	97.1	4,970
SW02	1.5	05/24/2018	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<15.0	285	35.6	285	321	52.5
SW05	1	05/24/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	75.3	<15.0	75.3	75.3	2,600
SW6	1.5	06/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	<5.00
SW7	2	06/06/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	2,110
SW8	2	06/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	22.1
SW09	2	08/23/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	499
SW10	2	08/23/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,800
SW11	2	08/23/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	2.62
SW12	2	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	856
SW13	1.5	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	2,370
SW14	0.5	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	1,650
SW15	2.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	236
SW16	1	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,140
SW17	2	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	188
SW18	1	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	70.1	<50.0	70.1	70.1	35.4
SW19	2	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	13.5
SW20	0 - 5	02/25/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	171

TABLE 1
SOIL ANALYTICAL RESULTS

GOLDENCHILD CENTRAL TANK BATTERY
REMEDIATION PERMIT NUMBER 2RP-4636
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
FS01	1	05/24/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	32.1	<15.0	32.1	32.1	3,390
FS02	2	05/24/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	21.1	<15.0	21.1	21	3,390
FS03	2	05/24/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	43.3	<15.0	43.3	43.3	2,580
FS7	2.5	06/06/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	16.4
FS8	4	06/06/2018	<0.0202	0.169	1.17	8.96	10.3	662	3,250	281	**3,912**	**4,190**	78.0
FS9	10	06/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	23.3	<14.9	23.3	23.3	2,410
FS10	4	08/23/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	2,590
FS11	4.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	2,970
FS12	4.5	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,770
FS13	3	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	969
FS14	5	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	752
FS15	4	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	2,230
FS16	2.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	290
FS17	4.5	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	1,170
FS18	1.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,680
FS19	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	567
FS20	5.5	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	3,040
FS21	4	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,950
FS22	4	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,960
FS23	5	02/25/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	25.9

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
ORO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-4636)

NM OIL CONSERVATION ARTESIA DISTRICT
FEB 23 2018
RECEIVED

District I
1625 N. French Dr., Hobbs
District II
811 S. First
District III
1000 Rio
District IV
1220 S. St

Please refer to the New Mexico Oil Conservation Division Website for updated form(s) at: http://www.emnrd.state.nm.us/OCD/forms.html Thank you

State of New Mexico
Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy 5380	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name: Goldenchild CTB	Facility Type: Exploration and Production

Surface Owner: State	Mineral Owner: State	API No. 30-01541846

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	6	25S	29E	800	South	330	East	Eddy

Latitude 32.154435 Longitude -104.016846

NATURE OF RELEASE

Type of Release Oil and produced water *	Volume of Release 77 bbl 30bbl Oil / 47bbl Rw *	Volume Recovered 74 bbl 28bbl Oil / 46bbl Rw
Source of Release Gun barrel	Date and Hour of Occurrence 2/10/2018, time unknown	Date and Hour of Discovery 2/11/2018, 7:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver (ENMRD), Kenda Montoya (SLO)	
By Whom? Jacob Foust	Date and Hour 2/11/2018, 3:20 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Gun barrel overflowed, possibly due to plug in dump line. Line had cleared by the time lease operator discovered release and was flowing normally again.

Describe Area Affected and Cleanup Action Taken.*
Most fluid was captured within impermeable lined containment, with some overspray impacting east, west, and north ends of containment. Vacuum truck was dispatched, 70bbl was recovered from lined containment, and 4bbl overspray recovered from caliche pad. An environmental contractor was retained to assist with the remediation and soil samples have been collected.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: Environmental Coordinator	Approval Date: 2/26/18 Expiration Date: N/A
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: See attached Attached ☒ 2RP-4636
Date: 2/23/2018 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

2/26/18AB

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	
District RP	2RP-4636
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-4636
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.154435 Longitude W -104.016846
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Goldenchild Central Tank Battery	Site Type: Production Well Facility
Date Release Discovered: 2/10/2018	API# *(if applicable):* 30-015-41846

Unit Letter	Section	Township	Range	County
P	6	25S	29E	Eddy

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): 30	Volume Recovered (bbls): 28
☒ Produced Water	Volume Released (bbls): 47	Volume Recovered (bbls): 46
	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
The gun barrel tank overflowed, possibly due to a plug in the dump line. Line had cleared by the time the lease operator discovered the release and was flowing normally again. Most fluid was captured within the impermeable lined containment, with some overspray impacting the east, west, and north ends of the containment.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4636
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was greater than 25 bbls.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
By Jacob Foust, to Mike Bratcher/Crystal Weaver (NMOCD), and Kenda Montoya (SLO) on 2/11/2018 at 3:20 PM.

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: 3-10-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4636
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?	51-100 (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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4636
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: 3-10-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1805736171
District RP	2RP-4636
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3-10-2020

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

OCD Only

Received by: Date:

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

Closure Approved by: Bradford Billings Date: 09/07/2021

Printed Name: Bradford Billings Title: Envi.Spec.A

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: South facing view of release area prior to excavation.

Photograph 2: Southeast facing view during excavation activities.

Photograph 3: View of open excavation between containments.

PHOTOGRAPHIC LOG

Photograph 4: South facing view during excavation activities.

Photograph 5: South facing view during excavation activities.

Photograph 6: North facing view of excavation south of containment.

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 28, 2018

Adrian Baker
XTO Midland
6401 Holiday Hill Rd #200
Midland, TX 79707
TEL: (432) 894-5641
FAX (505) 333-3280

RE: Golden Child OrderNo.: 1802C91

Dear Adrian Baker:

Hall Environmental Analysis Laboratory received 9 sample(s) on 2/23/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

CLIENT: XTO Midland
Project: Golden Child
Lab ID: 1802C91-001 **Matrix:** SOIL

Client Sample ID: EX-1
Collection Date: 2/22/2018 11:00:00 AM
Received Date: 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	2200	75		mg/Kg	50	2/26/2018 5:08:55 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	68	9.8		mg/Kg	1	2/26/2018 10:47:14 AM	36706
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2018 10:47:14 AM	36706
Surr: DNOP	105	70-130		%Rec	1	2/26/2018 10:47:14 AM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2018 10:05:51 AM	36697
Surr: BFB	91.7	15-316		%Rec	1	2/26/2018 10:05:51 AM	36697
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.048	0.025		mg/Kg	1	2/26/2018 10:05:51 AM	36697
Toluene	ND	0.049		mg/Kg	1	2/26/2018 10:05:51 AM	36697
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2018 10:05:51 AM	36697
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2018 10:05:51 AM	36697
Surr: 4-Bromofluorobenzene	88.1	80-120		%Rec	1	2/26/2018 10:05:51 AM	36697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix
W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Project: Golden Child
Lab ID: 1802C91-002 **Matrix:** SOIL

Client Sample ID: EX-2
Collection Date: 2/22/2018 1:15:00 PM
Received Date: 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	430	30		mg/Kg	20	2/26/2018 12:48:21 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	1200	46		mg/Kg	5	2/26/2018 3:34:32 PM	36706
Motor Oil Range Organics (MRO)	560	230		mg/Kg	5	2/26/2018 3:34:32 PM	36706
Surr: DNOP	121	70-130		%Rec	5	2/26/2018 3:34:32 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	74	9.2		mg/Kg	2	2/26/2018 12:04:34 PM	36697
Surr: BFB	345	15-316	S	%Rec	2	2/26/2018 12:04:34 PM	36697
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.67	0.046		mg/Kg	2	2/26/2018 12:04:34 PM	36697
Toluene	0.52	0.092		mg/Kg	2	2/26/2018 12:04:34 PM	36697
Ethylbenzene	0.28	0.092		mg/Kg	2	2/26/2018 12:04:34 PM	36697
Xylenes, Total	2.6	0.18		mg/Kg	2	2/26/2018 12:04:34 PM	36697
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	2	2/26/2018 12:04:34 PM	36697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Project: Golden Child
Lab ID: 1802C91-003 **Matrix:** SOIL

Client Sample ID: EX-3
Collection Date: 2/22/2018 1:20:00 PM
Received Date: 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 1:25:35 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/26/2018 11:53:07 AM	36706
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	2/26/2018 11:53:07 AM	36706
Surr: DNOP	104	70-130		%Rec	1	2/26/2018 11:53:07 AM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/26/2018 11:16:55 AM	36698
Surr: BFB	90.7	15-316		%Rec	1	2/26/2018 11:16:55 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2018 11:16:55 AM	36698
Toluene	ND	0.046		mg/Kg	1	2/26/2018 11:16:55 AM	36698
Ethylbenzene	ND	0.046		mg/Kg	1	2/26/2018 11:16:55 AM	36698
Xylenes, Total	ND	0.092		mg/Kg	1	2/26/2018 11:16:55 AM	36698
Surr: 4-Bromofluorobenzene	86.4	80-120		%Rec	1	2/26/2018 11:16:55 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Project: Golden Child
Lab ID: 1802C91-004 **Matrix:** SOIL

Client Sample ID: EX-4
Collection Date: 2/22/2018 1:25:00 PM
Received Date: 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	48	30		mg/Kg	20	2/26/2018 1:37:59 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	300	9.5		mg/Kg	1	2/26/2018 12:15:32 PM	36706
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	2/26/2018 12:15:32 PM	36706
Surr: DNOP	105	70-130		%Rec	1	2/26/2018 12:15:32 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	11	4.7		mg/Kg	1	2/26/2018 11:40:44 AM	36698
Surr: BFB	157	15-316		%Rec	1	2/26/2018 11:40:44 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.093	0.024		mg/Kg	1	2/26/2018 11:40:44 AM	36698
Toluene	0.12	0.047		mg/Kg	1	2/26/2018 11:40:44 AM	36698
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2018 11:40:44 AM	36698
Xylenes, Total	0.29	0.095		mg/Kg	1	2/26/2018 11:40:44 AM	36698
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	2/26/2018 11:40:44 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland **Client Sample ID:** EX-5
Project: Golden Child **Collection Date:** 2/22/2018 1:30:00 PM
Lab ID: 1802C91-005 **Matrix:** SOIL **Received Date:** 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 1:50:23 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	19000	470		mg/Kg	50	2/26/2018 4:00:12 PM	36706
Motor Oil Range Organics (MRO)	6400	2400		mg/Kg	50	2/26/2018 4:00:12 PM	36706
Surr: DNOP	0	70-130	S	%Rec	50	2/26/2018 4:00:12 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	13000	250		mg/Kg	50	2/26/2018 10:08:37 AM	36698
Surr: BFB	526	15-316	S	%Rec	50	2/26/2018 10:08:37 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	170	1.2		mg/Kg	50	2/26/2018 10:08:37 AM	36698
Toluene	460	9.8		mg/Kg	200	2/26/2018 12:28:24 PM	36698
Ethylbenzene	90	2.5		mg/Kg	50	2/26/2018 10:08:37 AM	36698
Xylenes, Total	550	4.9		mg/Kg	50	2/26/2018 10:08:37 AM	36698
Surr: 4-Bromofluorobenzene	137	80-120	S	%Rec	50	2/26/2018 10:08:37 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Client Sample ID: EX-6
Project: Golden Child
Collection Date: 2/22/2018 1:35:00 PM
Lab ID: 1802C91-006 **Matrix:** SOIL **Received Date:** 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 2:02:48 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	230	9.8		mg/Kg	1	2/27/2018 9:15:13 AM	36706
Motor Oil Range Organics (MRO)	94	49		mg/Kg	1	2/27/2018 9:15:13 AM	36706
Surr: DNOP	102	70-130		%Rec	1	2/27/2018 9:15:13 AM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	13	4.7		mg/Kg	1	2/26/2018 12:52:11 PM	36698
Surr: BFB	175	15-316		%Rec	1	2/26/2018 12:52:11 PM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.20	0.024		mg/Kg	1	2/26/2018 12:52:11 PM	36698
Toluene	0.23	0.047		mg/Kg	1	2/26/2018 12:52:11 PM	36698
Ethylbenzene	0.055	0.047		mg/Kg	1	2/26/2018 12:52:11 PM	36698
Xylenes, Total	0.41	0.094		mg/Kg	1	2/26/2018 12:52:11 PM	36698
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	2/26/2018 12:52:11 PM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Client Sample ID: EX-7
Project: Golden Child
Collection Date: 2/22/2018 1:40:00 PM
Lab ID: 1802C91-007 **Matrix:** SOIL **Received Date:** 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 2:15:13 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	4700	100		mg/Kg	10	2/26/2018 1:21:28 PM	36706
Motor Oil Range Organics (MRO)	1800	500		mg/Kg	10	2/26/2018 1:21:28 PM	36706
Surr: DNOP	0	70-130	S	%Rec	10	2/26/2018 1:21:28 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	900	46		mg/Kg	10	2/26/2018 10:31:51 AM	36698
Surr: BFB	368	15-316	S	%Rec	10	2/26/2018 10:31:51 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	6.5	0.23		mg/Kg	10	2/26/2018 10:31:51 AM	36698
Toluene	30	0.46		mg/Kg	10	2/26/2018 10:31:51 AM	36698
Ethylbenzene	4.8	0.46		mg/Kg	10	2/26/2018 10:31:51 AM	36698
Xylenes, Total	30	0.93		mg/Kg	10	2/26/2018 10:31:51 AM	36698
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	10	2/26/2018 10:31:51 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland **Client Sample ID:** EX-8
Project: Golden Child **Collection Date:** 2/22/2018 1:45:00 PM
Lab ID: 1802C91-008 **Matrix:** SOIL **Received Date:** 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 2:27:37 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	3900	95		mg/Kg	10	2/26/2018 2:06:36 PM	36706
Motor Oil Range Organics (MRO)	1300	480		mg/Kg	10	2/26/2018 2:06:36 PM	36706
Surr: DNOP	0	70-130	S	%Rec	10	2/26/2018 2:06:36 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	3500	240		mg/Kg	50	2/26/2018 10:55:06 AM	36698
Surr: BFB	250	15-316		%Rec	50	2/26/2018 10:55:06 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	26	1.2		mg/Kg	50	2/26/2018 10:55:06 AM	36698
Toluene	120	2.4		mg/Kg	50	2/26/2018 10:55:06 AM	36698
Ethylbenzene	21	2.4		mg/Kg	50	2/26/2018 10:55:06 AM	36698
Xylenes, Total	140	4.8		mg/Kg	50	2/26/2018 10:55:06 AM	36698
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	50	2/26/2018 10:55:06 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1802C91**
Date Reported: **2/28/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: XTO Midland
Project: Golden Child
Lab ID: 1802C91-009 **Matrix:** SOIL

Client Sample ID: EX-9
Collection Date: 2/22/2018 1:50:00 PM
Received Date: 2/23/2018 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	30		mg/Kg	20	2/26/2018 2:40:02 PM	36723
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	9700	180		mg/Kg	20	2/26/2018 4:03:11 PM	36706
Motor Oil Range Organics (MRO)	2800	920		mg/Kg	20	2/26/2018 4:03:11 PM	36706
Surr: DNOP	0	70-130	S	%Rec	20	2/26/2018 4:03:11 PM	36706
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	8400	480		mg/Kg	100	2/26/2018 11:18:21 AM	36698
Surr: BFB	228	15-316		%Rec	100	2/26/2018 11:18:21 AM	36698
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	91	2.4		mg/Kg	100	2/26/2018 11:18:21 AM	36698
Toluene	320	4.8		mg/Kg	100	2/26/2018 11:18:21 AM	36698
Ethylbenzene	53	4.8		mg/Kg	100	2/26/2018 11:18:21 AM	36698
Xylenes, Total	340	9.7		mg/Kg	100	2/26/2018 11:18:21 AM	36698
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	100	2/26/2018 11:18:21 AM	36698

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1802C91**
28-Feb-18

Client: XTO Midland
Project: Golden Child

Sample ID	**MB-36723**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**36723**	RunNo:	**49384**					
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1595313**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-36723**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**36723**	RunNo:	**49384**					
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1595314**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802C91**

28-Feb-18

Client: XTO Midland
Project: Golden Child

Sample ID	**LCS-36706**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**36706**		RunNo:	**49373**				
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**		SeqNo:	**1594363**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.4	70	130			
Surr: DNOP	4.6		5.000		92.4	70	130			

Sample ID	**MB-36706**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**36706**		RunNo:	**49373**				
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**		SeqNo:	**1594364**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	70	130			

Sample ID	**1802C91-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**EX-1**	Batch ID:	**36706**		RunNo:	**49373**				
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**		SeqNo:	**1594816**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	88	9.2	46.04	68.00	43.4	55.8	125			S
Surr: DNOP	4.5		4.604		98.5	70	130			

Sample ID	**1802C91-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**EX-1**	Batch ID:	**36706**		RunNo:	**49373**				
Prep Date:	**2/26/2018**	Analysis Date:	**2/26/2018**		SeqNo:	**1594817**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	97	9.4	46.86	68.00	62.8	55.8	125	10.2	20	
Surr: DNOP	4.5		4.686		96.2	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802C91**

28-Feb-18

Client: XTO Midland
Project: Golden Child

Sample ID	**MB-36697**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**36697**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594725**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	15	316			

Sample ID	**MB-36698**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**36698**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594739**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.7	15	316			

Sample ID	**LCS-36697**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**36697**	RunNo:	**49379**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594780**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.2	75.9	131			
Surr: BFB	1000		1000		105	15	316			

Sample ID	**LCS-36698**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**36698**	RunNo:	**49379**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594788**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.5	75.9	131			
Surr: BFB	1100		1000		107	15	316			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802C91**

28-Feb-18

Client: XTO Midland
Project: Golden Child

Sample ID	**MB-36697**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**36697**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594752**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Sample ID	**LCS-36697**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**36697**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594753**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	77.3	128			
Toluene	1.1	0.050	1.000	0	106	79.2	125			
Ethylbenzene	1.0	0.050	1.000	0	105	80.7	127			
Xylenes, Total	3.2	0.10	3.000	0	108	81.6	129			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	80	120			

Sample ID	**MB-36698**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**36698**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594767**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.2	80	120			

Sample ID	**LCS-36698**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**36698**	RunNo:	**49378**					
Prep Date:	**2/23/2018**	Analysis Date:	**2/26/2018**	SeqNo:	**1594768**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	77.3	128			
Toluene	1.0	0.050	1.000	0	99.8	79.2	125			
Ethylbenzene	0.98	0.050	1.000	0	97.7	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	100	81.6	129			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: XTO Energy | Work Order Number: 1802C91 | RcptNo: 1

Received By: Dennis Suazo 2/23/2018 9:35:00 AM

Completed By: Dennis Suazo 2/23/2018 10:40:57 AM

Reviewed By: DDS 2/23/18

Labeled By MW 2/23/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Not Present			

Chain-of-Custody Record

Client: XTO Energy
Kyle Littrell
Mailing Address:
Phone #:
email or Fax#: Kyle_littrell@xtoenergy.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) PDF

Turn-Around Time: 5 day Turn
☐ Standard ☒ Rush
Project Name: Golden Child
Project #:
Project Manager: LTE: Adria Baker
Sampler: Eric Carroll
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1802C91	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/22/18	1100	Soil	Ex-1	1402	Cool	001	X		X					X				
	1315		Ex-2			002	X		X					X				
	1320		Ex-3			003	X		X					X				
	1325		Ex-4			004	X		X					X				
	1330		Ex-5			005	X		X					X				
	1335		Ex-6			006	X		X					X				
	1340		Ex-7			007	X		X					X				
	1345		Ex-8			008	X		X					X				
	1350		Ex-9			009	X		X					X				

Date: 2/22/18 Time: 1675 Relinquished by:
Date: 22/18 Time: 1900 Relinquished by:

Received by: Date 2/22/18 Time 1625
Received by: Courier DPS 2/23/18 Date 2/23/18 Time 0935

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Analytical Report 587373

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Goldchild Former Excauatios

03-JUN-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

03-JUN-18

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

Reference: XENCO Report No(s): **587373**
Goldchild Former Excauatios
Project Address: New Mexico

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 587373. 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. 587373 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	05-24-18 15:31	- 1 ft	587373-001
FS02	S	05-24-18 15:37	- 2 ft	587373-002
FS03	S	05-24-18 15:42	- 2 ft	587373-003
SW01	S	05-24-18 15:49	- 1.5 ft	587373-004
SW02	S	05-24-18 15:53	- 1.5 ft	587373-005
SW05	S	05-24-18 16:15	- 1 ft	587373-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Goldchild Former Excauatios

Project ID:
Work Order Number(s): *587373*

Report Date: *03-JUN-18*
Date Received: *05/29/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3052093 BTEX by EPA 8021B

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

Certificate of Analysis Summary 587373

LT Environmental, Inc., Arvada, CO

Project Name: Goldchild Former Excauatios

Project Id:

Contact: Adrian Baker

Project Location: New Mexico

Date Received in Lab: Tue May-29-18 08:29 am

Report Date: 03-JUN-18

Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	587373-001		587373-002		587373-003		587373-004		587373-005		587373-006	
	Field Id:	FSO 1		FSO 2		FSO 3		SW01		SW02		SW05	
	Depth:	1 ft		2 ft		2 ft		1.5 ft		1.5 ft		1 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-24-18 15:31		May-24-18 15:37		May-24-18 15:42		May-24-18 15:49		May-24-18 15:53		May-24-18 16:15	
BTEX by EPA 8021B	*Extracted:*	May-30-18 11:00		May-30-18 11:00		May-30-18 11:00		May-30-18 11:00		May-30-18 11:00		May-30-18 11:00	
	Analyzed:	May-30-18 23:35		May-30-18 23:53		May-31-18 00:11		May-31-18 00:29		May-31-18 00:48		May-31-18 01:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00395	0.00395	<0.00396	0.00396	<0.00396	0.00396	<0.00394	0.00394	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198	<0.00197	0.00197	<0.00199	0.00199
Inorganic Anions by EPA 300	*Extracted:*	May-30-18 12:00		May-30-18 12:00		May-30-18 12:00		May-30-18 12:00		May-30-18 12:00		May-30-18 12:00	
	Analyzed:	May-30-18 20:21		May-30-18 20:26		May-30-18 20:32		May-30-18 20:37		May-30-18 20:42		May-30-18 21:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3390	24.9	3390	49.4	2580	24.7	4970	49.5	52.5	24.8	2600	24.9
TPH by SW8015 Mod	*Extracted:*	May-29-18 10:00		May-29-18 10:00		May-29-18 10:00		May-29-18 10:00		May-29-18 10:00		May-29-18 10:00	
	Analyzed:	May-29-18 21:07		May-29-18 22:04		May-29-18 22:22		May-29-18 22:40		May-29-18 22:58		May-29-18 23:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		32.1	15.0	21.1	15.0	43.3	15.0	97.1	15.0	285	15.0	75.3	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	35.6	15.0	<15.0	15.0
Total TPH		32.1	15.0	21.1	15.0	43.3	15.0	97.1	15.0	321	15.0	75.3	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **FSO 1** Matrix: Soil Date Received:05.29.18 08.29

Lab Sample Id: 587373-001 Date Collected: 05.24.18 15.31 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 05.30.18 12.00 Basis: Wet Weight

Seq Number: 3051851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3390**	24.9	mg/kg	05.30.18 20.21		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 05.29.18 10.00 Basis: Wet Weight

Seq Number: 3051701

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 21.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**32.1**	15.0	mg/kg	05.29.18 21.07		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.29.18 21.07	U	1
Total TPH	PHC635	**32.1**	15.0	mg/kg	05.29.18 21.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	05.29.18 21.07	
o-Terphenyl	84-15-1	114	%	70-135	05.29.18 21.07	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**FSO 1**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-001	Date Collected:	05.24.18 15.31	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	05.30.18 11.00	Basis:	Wet Weight
Seq Number:	3052093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.30.18 23.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.30.18 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.30.18 23.35	
1,4-Difluorobenzene	540-36-3	94	%	70-130	05.30.18 23.35	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **FSO 2** Matrix: Soil Date Received:05.29.18 08.29

Lab Sample Id: 587373-002 Date Collected: 05.24.18 15.37 Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 05.30.18 12.00 Basis: Wet Weight

Seq Number: 3051851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3390**	49.4	mg/kg	05.30.18 20.26		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 05.29.18 10.00 Basis: Wet Weight

Seq Number: 3051701

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 22.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**21.1**	15.0	mg/kg	05.29.18 22.04		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.29.18 22.04	U	1
Total TPH	PHC635	**21.1**	15.0	mg/kg	05.29.18 22.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	05.29.18 22.04	
o-Terphenyl	84-15-1	124	%	70-135	05.29.18 22.04	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**FSO 2**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-002	Date Collected:	05.24.18 15.37	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	05.30.18 11.00	Basis:	Wet Weight
Seq Number:	3052093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	05.30.18 23.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.30.18 23.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	05.30.18 23.53	
1,4-Difluorobenzene	540-36-3	98	%	70-130	05.30.18 23.53	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **FSO 3** Matrix: Soil Date Received:05.29.18 08.29

Lab Sample Id: 587373-003 Date Collected: 05.24.18 15.42 Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 05.30.18 12.00 Basis: Wet Weight

Seq Number: 3051851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2580**	24.7	mg/kg	05.30.18 20.32		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 05.29.18 10.00 Basis: Wet Weight

Seq Number: 3051701

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**43.3**	15.0	mg/kg	05.29.18 22.22		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.29.18 22.22	U	1
Total TPH	PHC635	**43.3**	15.0	mg/kg	05.29.18 22.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	05.29.18 22.22	
o-Terphenyl	84-15-1	123	%	70-135	05.29.18 22.22	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**FSO 3**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-003	Date Collected:	05.24.18 15.42	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	05.30.18 11.00	Basis:	Wet Weight
Seq Number:	3052093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.31.18 00.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.31.18 00.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	05.31.18 00.11	
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.31.18 00.11	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-004	Date Collected:	05.24.18 15.49	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	05.30.18 12.00	Basis:	Wet Weight
Seq Number:	3051851				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4970**	49.5	mg/kg	05.30.18 20.37		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	05.29.18 10.00	Basis:	Wet Weight
Seq Number:	3051701				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 22.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**97.1**	15.0	mg/kg	05.29.18 22.40		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.29.18 22.40	U	1
Total TPH	PHC635	**97.1**	15.0	mg/kg	05.29.18 22.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	05.29.18 22.40	
o-Terphenyl	84-15-1	120	%	70-135	05.29.18 22.40	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-004	Date Collected:	05.24.18 15.49	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	05.30.18 11.00	Basis:	Wet Weight
Seq Number:	3052093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.31.18 00.29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.31.18 00.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.31.18 00.29	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.31.18 00.29	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **SW02** Matrix: Soil Date Received:05.29.18 08.29

Lab Sample Id: 587373-005 Date Collected: 05.24.18 15.53 Sample Depth: 1.5 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 05.30.18 12.00 Basis: Wet Weight

Seq Number: 3051851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.5**	24.8	mg/kg	05.30.18 20.42		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 05.29.18 10.00 Basis: Wet Weight

Seq Number: 3051701

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 22.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**285**	15.0	mg/kg	05.29.18 22.58		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**35.6**	15.0	mg/kg	05.29.18 22.58		1
Total TPH	PHC635	**321**	15.0	mg/kg	05.29.18 22.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.29.18 22.58	
o-Terphenyl	84-15-1	106	%	70-135	05.29.18 22.58	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	05.29.18 08.29
Lab Sample Id:	587373-005	Date Collected:	05.24.18 15.53	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	JUM			% Moisture:	
Analyst:	JUM	Date Prep:	05.30.18 11.00	Basis:	Wet Weight
Seq Number:	3052093				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	05.31.18 00.48	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1
Total BTEX		<0.00197	0.00197	mg/kg	05.31.18 00.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	05.31.18 00.48	
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.31.18 00.48	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **SW05** Matrix: Soil Date Received:05.29.18 08.29

Lab Sample Id: 587373-006 Date Collected: 05.24.18 16.15 Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 05.30.18 12.00 Basis: Wet Weight

Seq Number: 3051851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2600**	24.9	mg/kg	05.30.18 21.03		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 05.29.18 10.00 Basis: Wet Weight

Seq Number: 3051701

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	05.29.18 23.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**75.3**	15.0	mg/kg	05.29.18 23.17		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	05.29.18 23.17	U	1
Total TPH	PHC635	**75.3**	15.0	mg/kg	05.29.18 23.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.29.18 23.17	
o-Terphenyl	84-15-1	105	%	70-135	05.29.18 23.17	

Certificate of Analytical Results 587373

LT Environmental, Inc., Arvada, CO

Goldchild Former Excauatios

Sample Id: **SW05**
Lab Sample Id: 587373-006

Matrix: Soil
Date Collected: 05.24.18 16.15

Date Received:05.29.18 08.29
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B
Tech: JUM
Analyst: JUM
Seq Number: 3052093

Date Prep: 05.30.18 11.00

Prep Method: SW5030B
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.31.18 01.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.31.18 01.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	05.31.18 01.06	
4-Bromofluorobenzene	460-00-4	113	%	70-130	05.31.18 01.06	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 587373

LT Environmental, Inc.

Goldchild Former Excauatios

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3051851 Matrix: Solid Date Prep: 05.30.18
MB Sample Id: 7655695-1-BLK LCS Sample Id: 7655695-1-BKS LCSD Sample Id: 7655695-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	275	110	273	109	90-110	1	20	mg/kg	05.30.18 19:23	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3051851 Matrix: Soil Date Prep: 05.30.18
Parent Sample Id: 587374-001 MS Sample Id: 587374-001 S MSD Sample Id: 587374-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	62.8	250	350	115	344	112	90-110	2	20	mg/kg	05.30.18 19:39	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3051851 Matrix: Soil Date Prep: 05.30.18
Parent Sample Id: 587374-002 MS Sample Id: 587374-002 S MSD Sample Id: 587374-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.79	249	287	113	282	111	90-110	2	20	mg/kg	05.30.18 20:53	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3051701 Matrix: Solid Date Prep: 05.29.18
MB Sample Id: 7655659-1-BLK LCS Sample Id: 7655659-1-BKS LCSD Sample Id: 7655659-1-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)	<15.0	1000	946	95	968	97	70-135	2	20	mg/kg	05.29.18 20:30	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1110	111	70-135	2	20	mg/kg	05.29.18 20:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		116		128		70-135	%	05.29.18 20:30
o-Terphenyl	125		128		130		70-135	%	05.29.18 20:30

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 587373

LT Environmental, Inc.

Goldchild Former Excauatios

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3051701 | Matrix: Soil | Date Prep: 05.29.18
Parent Sample Id: 587373-001 | MS Sample Id: 587373-001 S | MSD Sample Id: 587373-001 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)	<15.0	999	944	94	1010	101	70-135	7	20	mg/kg	05.29.18 21:27	
Diesel Range Organics (DRO)	32.1	999	1120	109	1210	118	70-135	8	20	mg/kg	05.29.18 21:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		128		70-135	%	05.29.18 21:27
o-Terphenyl	126		129		70-135	%	05.29.18 21:27

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3052093 | Matrix: Solid | Date Prep: 05.30.18
MB Sample Id: 7655893-1-BLK | LCS Sample Id: 7655893-1-BKS | LCSD Sample Id: 7655893-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00197	0.0984	0.0991	101	0.105	106	70-130	6	35	mg/kg	05.30.18 20:39	
Toluene	<0.00197	0.0984	0.104	106	0.108	110	70-130	4	35	mg/kg	05.30.18 20:39	
Ethylbenzene	<0.00197	0.0984	0.102	104	0.111	113	70-130	8	35	mg/kg	05.30.18 20:39	
m,p-Xylenes	<0.00394	0.197	0.222	113	0.233	118	70-130	5	35	mg/kg	05.30.18 20:39	
o-Xylene	<0.00197	0.0984	0.110	112	0.118	120	70-130	7	35	mg/kg	05.30.18 20:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		98		70-130	%	05.30.18 20:39
4-Bromofluorobenzene	95		92		97		70-130	%	05.30.18 20:39

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3052093 | Matrix: Soil | Date Prep: 05.30.18
Parent Sample Id: 587229-001 | MS Sample Id: 587229-001 S | MSD Sample Id: 587229-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00196	0.0982	0.0684	70	0.0769	78	70-130	12	35	mg/kg	05.30.18 21:14	
Toluene	<0.00196	0.0982	0.0664	68	0.0689	69	70-130	4	35	mg/kg	05.30.18 21:14	X
Ethylbenzene	<0.00196	0.0982	0.0579	59	0.0635	64	70-130	9	35	mg/kg	05.30.18 21:14	X
m,p-Xylenes	<0.00393	0.196	0.118	60	0.128	65	70-130	8	35	mg/kg	05.30.18 21:14	X
o-Xylene	<0.00196	0.0982	0.0651	66	0.0642	65	70-130	1	35	mg/kg	05.30.18 21:14	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		110		70-130	%	05.30.18 21:14
4-Bromofluorobenzene	111		124		70-130	%	05.30.18 21:14

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

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

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

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

Final 1.000

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 587573

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@LTEnv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name Katharine Howe

Project Information

Project Name/Number: Goldenrod Ld Farmer Excavations
Project Location: New Mexico
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP41636 30-015-41840

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.0	Field Comments
1	FS01	1'	5/24/18	1531	S	1								1	X	X	X	
2	FS02	2'		1537	S	1								1	X	X	X	
3	FS03	2'		1542	S	1								1	X	X	X	
4	SW01	1.5'		1549	S	1								1	X	X	X	
5	SW02	1.5'		1553	S	1								1	X	X	X	
6	SW05	1'		1615	S	1								1	X	X	X	
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Katharine Howe	5/25/18 0940	1	2	5/25 15:30	2 5/29/18 0800
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 2.3 Thermo. Corr. Factor 0.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05/29/2018 08:29:00 AM

Work Order #: 587373

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

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	TPH WAS RECEIVED IN BULK CONTAINER
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 05/29/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 05/29/2018
Jessica Kramer

Analytical Report 588647

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Golden Child CTB

18-JUN-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-JUN-18

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

Reference: XENCO Report No(s): **588647**
Golden Child CTB
Project Address: NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 588647. 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. 588647 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW6	S	06-06-18 10:00	1.5 ft	588647-001
SW7	S	06-06-18 11:00	2 ft	588647-002
SW7A	S	06-06-18 11:30	2 ft	588647-003
SW7B	S	06-06-18 12:00	2 ft	588647-004
SW8	S	06-06-18 10:45	2 ft	588647-005
FS7	S	06-06-18 10:10	2.5 ft	588647-006
FS8	S	06-06-18 13:30	4 ft	588647-007
FS9	S	06-06-18 15:00	10 ft	588647-008

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden Child CTB

Project ID:
Work Order Number(s): *588647*

Report Date: *18-JUN-18*
Date Received: *06/08/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3052863 BTEX by EPA 8021B
Lab Sample ID 588647-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588647-001, -002.
The Laboratory Control Sample for Benzene, Ethylbenzene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3052970 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3053082 Inorganic Anions by EPA 300
Lab Sample ID 588647-007 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588647-001, -002, -003, -004, -005, -006, -007, -008.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3053429 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3053603 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3053699 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 588647

LT Environmental, Inc., Arvada, CO

Project Name: Golden Child CTB

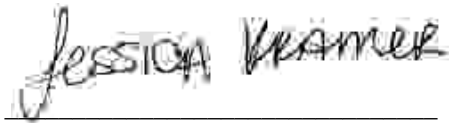
Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Fri Jun-08-18 10:09 am
Report Date: 18-JUN-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	588647-001		588647-002		588647-003		588647-004		588647-005		588647-006	
	Field Id:	SW6		SW7		SW7A		SW7B		SW8		FS7	
	Depth:	1.5- ft		2- ft		2- ft		2- ft		2- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-06-18 10:00		Jun-06-18 11:00		Jun-06-18 11:30		Jun-06-18 12:00		Jun-06-18 10:45		Jun-06-18 10:10	
BTEX by EPA 8021B	***Extracted:***	Jun-08-18 16:30		Jun-08-18 16:30		Jun-12-18 08:00		Jun-10-18 08:30		Jun-14-18 16:00		Jun-12-18 08:00	
	Analyzed:	Jun-08-18 19:56		Jun-08-18 23:28		Jun-12-18 10:01		Jun-10-18 21:16		Jun-14-18 20:57		Jun-12-18 12:59	
	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	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00403	0.00403	<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	0.0107	0.00199
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	0.0107	0.00199
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	0.0107	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Jun-09-18 09:30		Jun-09-18 09:30		Jun-09-18 09:30		Jun-09-18 09:30		Jun-09-18 09:30		Jun-09-18 09:30	
	Analyzed:	Jun-11-18 10:02		Jun-11-18 10:07		Jun-11-18 10:24		Jun-11-18 10:29		Jun-11-18 10:34		Jun-11-18 10:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<5.00	5.00	2110	24.5	2010	24.5	1590	24.9	22.1	4.90	16.4	4.96
TPH by SW8015 Mod	***Extracted:***	Jun-08-18 16:00		Jun-08-18 16:00		Jun-08-18 16:00		Jun-08-18 16:00		Jun-08-18 16:00		Jun-08-18 16:00	
	Analyzed:	Jun-09-18 21:55		Jun-09-18 22:13		Jun-09-18 22:31		Jun-09-18 22:50		Jun-09-18 23:08		Jun-09-18 23:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%



Jessica Kramer
Project Assistant

Certificate of Analysis Summary 588647

LT Environmental, Inc., Arvada, CO

Project Name: Golden Child CTB

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Fri Jun-08-18 10:09 am
Report Date: 18-JUN-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	588647-007		588647-008					
	Field Id:	FS8		FS9					
	Depth:	4- ft		10- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Jun-06-18 13:30		Jun-06-18 15:00					
BTEX by EPA 8021B	***Extracted:***	Jun-15-18 08:00		Jun-15-18 08:00					
	Analyzed:	Jun-15-18 12:42		Jun-15-18 11:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0202	0.0202	<0.00201	0.00201				
Toluene		0.169	0.0202	<0.00201	0.00201				
Ethylbenzene		1.17	0.0202	<0.00201	0.00201				
m,p-Xylenes		6.04	0.0403	<0.00402	0.00402				
o-Xylene		2.92	0.0202	<0.00201	0.00201				
Total Xylenes		8.96	0.0202	<0.00201	0.00201				
Total BTEX		10.3	0.0202	<0.00201	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Jun-09-18 09:30		Jun-09-18 09:30					
	Analyzed:	Jun-11-18 10:50		Jun-11-18 10:45					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		78.0	4.93	2410	24.5				
TPH by SW8015 Mod	***Extracted:***	Jun-08-18 16:00		Jun-08-18 16:00					
	Analyzed:	Jun-10-18 00:21		Jun-10-18 00:40					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		662	15.0	<14.9	14.9				
Diesel Range Organics (DRO)		3250	15.0	23.3	14.9				
Oil Range Hydrocarbons (ORO)		281	15.0	<14.9	14.9				
Total TPH		4190	15.0	23.3	14.9				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW6**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-001	Date Collected:	06.06.18 10.00	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	06.11.18 10.02	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.09.18 21.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.09.18 21.55	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.09.18 21.55	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.09.18 21.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	06.09.18 21.55	
o-Terphenyl	84-15-1	96	%	70-135	06.09.18 21.55	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW6**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-001	Date Collected:	06.06.18 10.00	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.08.18 16.30	Basis:	Wet Weight
Seq Number:	3052863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.08.18 19.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.08.18 19.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.08.18 19.56	
4-Bromofluorobenzene	460-00-4	109	%	70-130	06.08.18 19.56	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-002	Date Collected:	06.06.18 11.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2110**	24.5	mg/kg	06.11.18 10.07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.09.18 22.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.09.18 22.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.09.18 22.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.09.18 22.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	06.09.18 22.13	
o-Terphenyl	84-15-1	96	%	70-135	06.09.18 22.13	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-002	Date Collected:	06.06.18 11.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.08.18 16.30	Basis:	Wet Weight
Seq Number:	3052863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.08.18 23.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.08.18 23.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	06.08.18 23.28	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.08.18 23.28	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7A**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-003	Date Collected:	06.06.18 11.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2010**	24.5	mg/kg	06.11.18 10.24		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.09.18 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.09.18 22.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.09.18 22.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.09.18 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.09.18 22.31	
o-Terphenyl	84-15-1	95	%	70-135	06.09.18 22.31	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7A**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-003	Date Collected:	06.06.18 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.12.18 08.00	Basis:	Wet Weight
Seq Number:	3053429				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.12.18 10.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.12.18 10.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.12.18 10.01	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.12.18 10.01	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7B**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-004	Date Collected:	06.06.18 12.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1590**	24.9	mg/kg	06.11.18 10.29		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.09.18 22.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.09.18 22.50	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.09.18 22.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.09.18 22.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.09.18 22.50	
o-Terphenyl	84-15-1	95	%	70-135	06.09.18 22.50	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW7B**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-004	Date Collected:	06.06.18 12.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.10.18 08.30	Basis:	Wet Weight
Seq Number:	3052970				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.10.18 21.16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.10.18 21.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.10.18 21.16	
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.10.18 21.16	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW8**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-005	Date Collected:	06.06.18 10.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.1**	4.90	mg/kg	06.11.18 10.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.09.18 23.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.09.18 23.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.09.18 23.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.09.18 23.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.09.18 23.08	
o-Terphenyl	84-15-1	95	%	70-135	06.09.18 23.08	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**SW8**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-005	Date Collected:	06.06.18 10.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.14.18 16.00	Basis:	Wet Weight
Seq Number:	3053603				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.14.18 20.57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.14.18 20.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	06.14.18 20.57	
1,4-Difluorobenzene	540-36-3	116	%	70-130	06.14.18 20.57	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**FS7**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-006	Date Collected:	06.06.18 10.10	Sample Depth:	2.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.4**	4.96	mg/kg	06.11.18 10.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.09.18 23.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.09.18 23.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.09.18 23.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.09.18 23.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	06.09.18 23.26	
o-Terphenyl	84-15-1	95	%	70-135	06.09.18 23.26	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**FS7**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-006	Date Collected:	06.06.18 10.10	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.12.18 08.00	Basis:	Wet Weight
Seq Number:	3053429				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.12.18 12.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.12.18 12.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.12.18 12.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.12.18 12.59	U	1
o-Xylene	95-47-6	**0.0107**	0.00199	mg/kg	06.12.18 12.59		1
Total Xylenes	1330-20-7	**0.0107**	0.00199	mg/kg	06.12.18 12.59		1
Total BTEX		**0.0107**	0.00199	mg/kg	06.12.18 12.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	06.12.18 12.59	
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.12.18 12.59	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id: **FS8** Matrix: Soil Date Received:06.08.18 10.09

Lab Sample Id: 588647-007 Date Collected: 06.06.18 13.30 Sample Depth: 4 ft

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Tech: OJS % Moisture:

Analyst: SCM Date Prep: 06.09.18 09.30 Basis: Wet Weight

Seq Number: 3053082

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.0**	4.93	mg/kg	06.11.18 10.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 06.08.18 16.00 Basis: Wet Weight

Seq Number: 3052907

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**662**	15.0	mg/kg	06.10.18 00.21		1
Diesel Range Organics (DRO)	C10C28DRO	**3250**	15.0	mg/kg	06.10.18 00.21		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**281**	15.0	mg/kg	06.10.18 00.21		1
Total TPH	PHC635	**4190**	15.0	mg/kg	06.10.18 00.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	06.10.18 00.21	
o-Terphenyl	84-15-1	89	%	70-135	06.10.18 00.21	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**FS8**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-007	Date Collected:	06.06.18 13.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.15.18 08.00	Basis:	Wet Weight
Seq Number:	3053699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0202	0.0202	mg/kg	06.15.18 12.42	U	10
Toluene	108-88-3	**0.169**	0.0202	mg/kg	06.15.18 12.42		10
Ethylbenzene	100-41-4	**1.17**	0.0202	mg/kg	06.15.18 12.42		10
m,p-Xylenes	179601-23-1	**6.04**	0.0403	mg/kg	06.15.18 12.42		10
o-Xylene	95-47-6	**2.92**	0.0202	mg/kg	06.15.18 12.42		10
Total Xylenes	1330-20-7	**8.96**	0.0202	mg/kg	06.15.18 12.42		10
Total BTEX		**10.3**	0.0202	mg/kg	06.15.18 12.42		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	06.15.18 12.42	
1,4-Difluorobenzene	540-36-3	73	%	70-130	06.15.18 12.42	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**FS9**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-008	Date Collected:	06.06.18 15.00	Sample Depth:	10 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	SCM	Date Prep:	06.09.18 09.30	Basis:	Wet Weight
Seq Number:	3053082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2410**	24.5	mg/kg	06.11.18 10.45		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.08.18 16.00	Basis:	Wet Weight
Seq Number:	3052907				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.10.18 00.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**23.3**	14.9	mg/kg	06.10.18 00.40		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.10.18 00.40	U	1
Total TPH	PHC635	**23.3**	14.9	mg/kg	06.10.18 00.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.10.18 00.40	
o-Terphenyl	84-15-1	96	%	70-135	06.10.18 00.40	

Certificate of Analytical Results 588647

LT Environmental, Inc., Arvada, CO

Golden Child CTB

Sample Id:	**FS9**	Matrix:	Soil	Date Received:	06.08.18 10.09
Lab Sample Id:	588647-008	Date Collected:	06.06.18 15.00	Sample Depth:	10 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.15.18 08.00	Basis:	Wet Weight
Seq Number:	3053699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.15.18 11.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.15.18 11.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	06.15.18 11.11	
4-Bromofluorobenzene	460-00-4	130	%	70-130	06.15.18 11.11	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 588647

LT Environmental, Inc.

Golden Child CTB

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053082 — Matrix: Solid — Date Prep: 06.09.18
MB Sample Id: 7656330-1-BLK — LCS Sample Id: 7656330-1-BKS — LCSD Sample Id: 7656330-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	246	98	90-110	0	20	mg/kg	06.11.18 09:24	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053082 — Matrix: Soil — Date Prep: 06.09.18
Parent Sample Id: 588544-002 — MS Sample Id: 588544-002 S — MSD Sample Id: 588544-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.88	250	310	121	313	122	90-110	1	20	mg/kg	06.11.18 09:40	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053082 — Matrix: Soil — Date Prep: 06.09.18
Parent Sample Id: 588647-007 — MS Sample Id: 588647-007 S — MSD Sample Id: 588647-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	78.0	247	354	112	359	114	90-110	1	20	mg/kg	06.11.18 10:56	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3052907 — Matrix: Solid — Date Prep: 06.08.18
MB Sample Id: 7656367-1-BLK — LCS Sample Id: 7656367-1-BKS — LCSD Sample Id: 7656367-1-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)	<15.0	1000	907	91	975	98	70-135	7	20	mg/kg	06.09.18 19:27	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1080	108	70-135	7	20	mg/kg	06.09.18 19:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		130		122		70-135	%	06.09.18 19:27
o-Terphenyl	95		117		114		70-135	%	06.09.18 19:27

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 588647

LT Environmental, Inc.

Golden Child CTB

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3052907 | Matrix: Soil | Date Prep: 06.08.18
Parent Sample Id: 588459-001 | MS Sample Id: 588459-001 S | MSD Sample Id: 588459-001 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)	<15.0	999	918	92	907	91	70-135	1	20	mg/kg	06.09.18 20:23	
Diesel Range Organics (DRO)	<15.0	999	1040	104	1030	103	70-135	1	20	mg/kg	06.09.18 20:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		118		70-135	%	06.09.18 20:23
o-Terphenyl	102		102		70-135	%	06.09.18 20:23

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3052863 | Matrix: Solid | Date Prep: 06.08.18
MB Sample Id: 7656325-1-BLK | LCS Sample Id: 7656325-1-BKS | LCSD Sample Id: 7656325-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0941	93	0.0936	94	70-130	1	35	mg/kg	06.08.18 18:07	
Toluene	<0.00202	0.101	0.0986	98	0.0970	97	70-130	2	35	mg/kg	06.08.18 18:07	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0990	99	70-130	3	35	mg/kg	06.08.18 18:07	
m,p-Xylenes	<0.00403	0.202	0.201	100	0.206	102	70-130	2	35	mg/kg	06.08.18 18:07	
o-Xylene	<0.00202	0.101	0.100	99	0.0989	99	70-130	1	35	mg/kg	06.08.18 18:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		94		104		70-130	%	06.08.18 18:07
4-Bromofluorobenzene	95		91		102		70-130	%	06.08.18 18:07

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3052970 | Matrix: Solid | Date Prep: 06.10.18
MB Sample Id: 7656395-1-BLK | LCS Sample Id: 7656395-1-BKS | LCSD Sample Id: 7656395-1-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	0.0879	88	0.0862	85	70-130	2	35	mg/kg	06.10.18 19:28	
Toluene	<0.00200	0.100	0.0934	93	0.0907	90	70-130	3	35	mg/kg	06.10.18 19:28	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0893	88	70-130	3	35	mg/kg	06.10.18 19:28	
m,p-Xylenes	<0.00401	0.200	0.189	95	0.185	92	70-130	2	35	mg/kg	06.10.18 19:28	
o-Xylene	<0.00200	0.100	0.0921	92	0.0897	89	70-130	3	35	mg/kg	06.10.18 19:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		99		94		70-130	%	06.10.18 19:28
4-Bromofluorobenzene	87		98		94		70-130	%	06.10.18 19:28

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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

Final 1.000

QC Summary 588647

LT Environmental, Inc.

Golden Child CTB

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3053429 — Matrix: Solid — Date Prep: 06.12.18
MB Sample Id: 7656567-1-BLK — LCS Sample Id: 7656567-1-BKS — LCSD Sample Id: 7656567-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0934	93	0.0836	83	70-130	11	35	mg/kg	06.12.18 07:35	
Toluene	<0.00201	0.100	0.0973	97	0.0867	86	70-130	12	35	mg/kg	06.12.18 07:35	
Ethylbenzene	<0.00201	0.100	0.0970	97	0.0889	88	70-130	9	35	mg/kg	06.12.18 07:35	
m,p-Xylenes	<0.00402	0.201	0.199	99	0.186	93	70-130	7	35	mg/kg	06.12.18 07:35	
o-Xylene	<0.00201	0.100	0.0923	92	0.0920	91	70-130	0	35	mg/kg	06.12.18 07:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		100		98		70-130	%	06.12.18 07:35
4-Bromofluorobenzene	113		97		98		70-130	%	06.12.18 07:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3053603 — Matrix: Solid — Date Prep: 06.14.18
MB Sample Id: 7656667-1-BLK — LCS Sample Id: 7656667-1-BKS — LCSD Sample Id: 7656667-1-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	0.0941	94	0.0871	87	70-130	8	35	mg/kg	06.14.18 17:19	
Toluene	<0.00200	0.100	0.101	101	0.0930	93	70-130	8	35	mg/kg	06.14.18 17:19	
Ethylbenzene	<0.00200	0.100	0.0993	99	0.0925	93	70-130	7	35	mg/kg	06.14.18 17:19	
m,p-Xylenes	<0.00401	0.200	0.208	104	0.194	97	70-130	7	35	mg/kg	06.14.18 17:19	
o-Xylene	<0.00200	0.100	0.106	106	0.0910	91	70-130	15	35	mg/kg	06.14.18 17:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		92		99		70-130	%	06.14.18 17:19
4-Bromofluorobenzene	89		100		122		70-130	%	06.14.18 17:19

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3053699 — Matrix: Solid — Date Prep: 06.15.18
MB Sample Id: 7656796-1-BLK — LCS Sample Id: 7656796-1-BKS — LCSD Sample Id: 7656796-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0915	91	0.0882	88	70-130	4	35	mg/kg	06.15.18 07:31	
Toluene	<0.00201	0.101	0.0993	98	0.0953	95	70-130	4	35	mg/kg	06.15.18 07:31	
Ethylbenzene	<0.00201	0.101	0.0984	97	0.0935	94	70-130	5	35	mg/kg	06.15.18 07:31	
m,p-Xylenes	<0.00402	0.201	0.206	102	0.196	98	70-130	5	35	mg/kg	06.15.18 07:31	
o-Xylene	<0.00201	0.101	0.0946	94	0.0924	92	70-130	2	35	mg/kg	06.15.18 07:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		93		100		70-130	%	06.15.18 07:31
4-Bromofluorobenzene	106		101		98		70-130	%	06.15.18 07:31

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 588647

LT Environmental, Inc.

Golden Child CTB

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3052863 — Matrix: Soil — Date Prep: 06.08.18
Parent Sample Id: 588647-001 — MS Sample Id: 588647-001 S — MSD Sample Id: 588647-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0710	71	0.0672	67	70-130	5	35	mg/kg	06.08.18 18:43	X
Toluene	<0.00199	0.0996	0.0749	75	0.0721	71	70-130	4	35	mg/kg	06.08.18 18:43	
Ethylbenzene	<0.00199	0.0996	0.0736	74	0.0700	69	70-130	5	35	mg/kg	06.08.18 18:43	X
m,p-Xylenes	<0.00398	0.199	0.154	77	0.146	73	70-130	5	35	mg/kg	06.08.18 18:43	
o-Xylene	<0.00199	0.0996	0.0815	82	0.0704	70	70-130	15	35	mg/kg	06.08.18 18:43	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		105		70-130	%	06.08.18 18:43
4-Bromofluorobenzene	103		108		70-130	%	06.08.18 18:43

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3052970 — Matrix: Soil — Date Prep: 06.10.18
Parent Sample Id: 588647-004 — MS Sample Id: 588647-004 S — MSD Sample Id: 588647-004 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	0.0756	75	0.0760	75	70-130	1	35	mg/kg	06.10.18 20:04	
Toluene	<0.00202	0.101	0.0813	80	0.0797	79	70-130	2	35	mg/kg	06.10.18 20:04	
Ethylbenzene	<0.00202	0.101	0.0814	81	0.0819	81	70-130	1	35	mg/kg	06.10.18 20:04	
m,p-Xylenes	<0.00404	0.202	0.167	83	0.171	85	70-130	2	35	mg/kg	06.10.18 20:04	
o-Xylene	<0.00202	0.101	0.0767	76	0.0782	77	70-130	2	35	mg/kg	06.10.18 20:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	06.10.18 20:04
4-Bromofluorobenzene	104		106		70-130	%	06.10.18 20:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3053429 — Matrix: Soil — Date Prep: 06.12.18
Parent Sample Id: 588647-006 — MS Sample Id: 588647-006 S — MSD Sample Id: 588647-006 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	0.0881	88	0.0915	91	70-130	4	35	mg/kg	06.12.18 08:12	
Toluene	<0.00200	0.100	0.0942	94	0.0952	94	70-130	1	35	mg/kg	06.12.18 08:12	
Ethylbenzene	<0.00200	0.100	0.0880	88	0.0892	88	70-130	1	35	mg/kg	06.12.18 08:12	
m,p-Xylenes	<0.00401	0.200	0.192	96	0.194	97	70-130	1	35	mg/kg	06.12.18 08:12	
o-Xylene	0.0107	0.100	0.0957	85	0.0921	81	70-130	4	35	mg/kg	06.12.18 08:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		100		70-130	%	06.12.18 08:12
4-Bromofluorobenzene	96		101		70-130	%	06.12.18 08:12

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 588647

LT Environmental, Inc.

Golden Child CTB

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3053603
Matrix: Soil
Date Prep: 06.14.18
Parent Sample Id: 588822-002
MS Sample Id: 588822-002 S
MSD Sample Id: 588822-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0578	58	0.0661	65	70-130	13	35	mg/kg	06.14.18 17:55	X
Toluene	<0.00201	0.100	0.0592	59	0.0663	66	70-130	11	35	mg/kg	06.14.18 17:55	X
Ethylbenzene	<0.00201	0.100	0.0519	52	0.0592	59	70-130	13	35	mg/kg	06.14.18 17:55	X
m,p-Xylenes	<0.00402	0.201	0.107	53	0.120	60	70-130	11	35	mg/kg	06.14.18 17:55	X
o-Xylene	<0.00201	0.100	0.0520	52	0.0572	57	70-130	10	35	mg/kg	06.14.18 17:55	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		97		70-130	%	06.14.18 17:55
4-Bromofluorobenzene	106		123		70-130	%	06.14.18 17:55

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3053699
Matrix: Soil
Date Prep: 06.15.18
Parent Sample Id: 588766-001
MS Sample Id: 588766-001 S
MSD Sample Id: 588766-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0356	36	0.0325	33	70-130	9	35	mg/kg	06.15.18 08:07	X
Toluene	<0.00200	0.0998	0.0393	39	0.0342	34	70-130	14	35	mg/kg	06.15.18 08:07	X
Ethylbenzene	<0.00200	0.0998	0.0365	37	0.0349	35	70-130	4	35	mg/kg	06.15.18 08:07	X
m,p-Xylenes	<0.00399	0.200	0.0760	38	0.0722	36	70-130	5	35	mg/kg	06.15.18 08:07	X
o-Xylene	<0.00200	0.0998	0.0351	35	0.0327	33	70-130	7	35	mg/kg	06.15.18 08:07	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		96		70-130	%	06.15.18 08:07
4-Bromofluorobenzene	102		103		70-130	%	06.15.18 08:07

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

Final 1.000

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES
Setting the Standard since 1990
Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
Phoenix, Arizona (480-355-0900)
www.xenco.com

Xenco Quote # | Xenco Job # 598647

Client / Reporting Information

Company Name / Branch: LT Environmental - Permian Office
Company Address: 3300 North "A" St, Building 1, Unit #103 Midland, TX 79705
Email: Abaker@ltenv.com, Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Daniel Thomas

Project Information

Project Name/Number: Golden Child CTB
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-4636

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chlorides	Field Comments
1	SW6	1.5'	6/6/18	1000	Soil	1									X	X	X	
2	SW7	2'	6/6/18	1100														
3	SW7A	2'	6/6/18	1130														
4	SW7B	2'	6/6/18	1200														
5	SW8	2'	6/6/18	1045														
6	FS7	2.5'	6/6/18	1016														
7	FS8	4'	6/6/18	1330														
8	FS9	10'	6/6/18	1500														
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY rStandard

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/7/18 1930	Timothy P. Elbert	2	6/7 15:30	2 Rebecca 6/8/18 1000
3	Relinquished by:	Date Time:	Received By:	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 4.2 / Thermo. Corr. Factor 1.0 0.0

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/08/2018 10:09:00 AM

Work Order #: 588647

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 06/08/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06/08/2018

Jessica Kramer

Analytical Report 597096

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Golden Child 2RP-4636

Golden Child 2RP-4636

05-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

05-OCT-18

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

Reference: XENCO Report No(s): **597096**
Golden Child 2RP-4636
Project Address: NM Eddy

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 597096. 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. 597096 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW09	S	08-23-18 17:10	2 ft	597096-001
SW10	S	08-23-18 17:15	2 ft	597096-002
SW11	S	08-23-18 17:25	2 ft	597096-003
FS10	S	08-23-18 17:20	4 ft	597096-004
BH01	S	08-23-18 17:30	24 ft	597096-005

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Golden Child 2RP-4636

Project ID: *Golden Child 2RP-4636*
Work Order Number(s): *597096*

Report Date: *05-OCT-18*
Date Received: *08/27/2018*

Sample receipt non conformances and comments:

PER CLIENTS EMAIL, CORRECT SAMPLE 003 NAME FROM SW1 TO SW11. NEW VERSION GENERATED JKR 10/05/18

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3061402 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 597096

LT Environmental, Inc., Arvada, CO

Project Name: Golden Child 2RP-4636

Project Id: Golden Child 2RP-4636
Contact: Adrian Baker
Project Location: NM Eddy

Date Received in Lab: Mon Aug-27-18 10:00 am
Report Date: 05-OCT-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	597096-001		597096-002		597096-003		597096-004		597096-005	
	Field Id:	SW09		SW10		SW11		FS10		BH01	
	Depth:	2- ft		2- ft		2- ft		4- ft		24- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-23-18 17:10		Aug-23-18 17:15		Aug-23-18 17:25		Aug-23-18 17:20		Aug-23-18 17:30	
BTEX by EPA 8021B	***Extracted:***	Aug-27-18 12:00		Aug-27-18 12:00		Aug-27-18 12:00		Aug-27-18 12:00		Aug-27-18 12:00	
	Analyzed:	Aug-27-18 23:36		Aug-27-18 23:57		Aug-28-18 00:17		Aug-28-18 00:37		Aug-28-18 00:58	
	Units/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	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00403	0.00403	<0.00404	0.00404
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Aug-27-18 15:00		Aug-27-18 15:00		Aug-27-18 15:00		Aug-27-18 15:00		Aug-27-18 15:00	
	Analyzed:	Aug-27-18 18:23		Aug-27-18 18:29		Aug-27-18 18:34		Aug-27-18 18:40		Aug-27-18 18:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		499	4.95	1800	25.0	2620	25.0	2590	25.0	2000	24.9
TPH by SW8015 Mod	***Extracted:***	Aug-27-18 11:00		Aug-27-18 11:00		Aug-27-18 11:00		Aug-27-18 11:00		Aug-27-18 11:00	
	Analyzed:	Aug-27-18 16:37		Aug-27-18 16:57		Aug-27-18 17:58		Aug-27-18 18:19		Aug-27-18 18:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-001	Date Collected:	08.23.18 17.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.27.18 15.00	Basis:	Wet Weight
Seq Number:	3061362				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**499**	4.95	mg/kg	08.27.18 18.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.18 11.00	Basis:	Wet Weight
Seq Number:	3061397				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.27.18 16.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.27.18 16.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.27.18 16.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.27.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.27.18 16.37	
o-Terphenyl	84-15-1	96	%	70-135	08.27.18 16.37	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-001	Date Collected:	08.23.18 17.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.27.18 12.00	Basis:	Wet Weight
Seq Number:	3061402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.27.18 23.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.27.18 23.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.27.18 23.36	
1,4-Difluorobenzene	540-36-3	92	%	70-130	08.27.18 23.36	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-002	Date Collected:	08.23.18 17.15	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.27.18 15.00	Basis:	Wet Weight
Seq Number:	3061362				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1800**	25.0	mg/kg	08.27.18 18.29		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.18 11.00	Basis:	Wet Weight
Seq Number:	3061397				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.27.18 16.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.27.18 16.57	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.27.18 16.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.27.18 16.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.27.18 16.57	
o-Terphenyl	84-15-1	92	%	70-135	08.27.18 16.57	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-002	Date Collected:	08.23.18 17.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.27.18 12.00	Basis:	Wet Weight
Seq Number:	3061402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.27.18 23.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.27.18 23.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.27.18 23.57	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.27.18 23.57	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-003	Date Collected:	08.23.18 17.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.27.18 15.00	Basis:	Wet Weight
Seq Number:	3061362				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2620**	25.0	mg/kg	08.27.18 18.34		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.18 11.00	Basis:	Wet Weight
Seq Number:	3061397				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.27.18 17.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.27.18 17.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.27.18 17.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.27.18 17.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.27.18 17.58	
o-Terphenyl	84-15-1	91	%	70-135	08.27.18 17.58	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-003	Date Collected:	08.23.18 17.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.27.18 12.00	Basis:	Wet Weight
Seq Number:	3061402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.28.18 00.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.28.18 00.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	08.28.18 00.17	
4-Bromofluorobenzene	460-00-4	91	%	70-130	08.28.18 00.17	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-004	Date Collected:	08.23.18 17.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.27.18 15.00	Basis:	Wet Weight
Seq Number:	3061362				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2590**	25.0	mg/kg	08.27.18 18.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.18 11.00	Basis:	Wet Weight
Seq Number:	3061397				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.27.18 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.27.18 18.19	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.27.18 18.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.27.18 18.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.27.18 18.19	
o-Terphenyl	84-15-1	94	%	70-135	08.27.18 18.19	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-004	Date Collected:	08.23.18 17.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.27.18 12.00	Basis:	Wet Weight
Seq Number:	3061402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.28.18 00.37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.28.18 00.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.28.18 00.37	
1,4-Difluorobenzene	540-36-3	92	%	70-130	08.28.18 00.37	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-005	Date Collected:	08.23.18 17.30	Sample Depth:	24 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	08.27.18 15.00	Basis:	Wet Weight
Seq Number:	3061362				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2000**	24.9	mg/kg	08.27.18 18.45		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.18 11.00	Basis:	Wet Weight
Seq Number:	3061397				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.27.18 18.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.27.18 18.39	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.27.18 18.39	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.27.18 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.27.18 18.39	
o-Terphenyl	84-15-1	92	%	70-135	08.27.18 18.39	

Certificate of Analytical Results 597096

LT Environmental, Inc., Arvada, CO

Golden Child 2RP-4636

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	08.27.18 10.00
Lab Sample Id:	597096-005	Date Collected:	08.23.18 17.30	Sample Depth:	24 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.27.18 12.00	Basis:	Wet Weight
Seq Number:	3061402				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.28.18 00.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.28.18 00.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.28.18 00.58	
1,4-Difluorobenzene	540-36-3	93	%	70-130	08.28.18 00.58	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 597096

LT Environmental, Inc.

Golden Child 2RP-4636

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3061362 Matrix: Solid Date Prep: 08.27.18
MB Sample Id: 7661225-1-BLK LCS Sample Id: 7661225-1-BKS LCSD Sample Id: 7661225-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	248	99	252	101	90-110	2	20	mg/kg	08.27.18 16:01	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3061362 Matrix: Soil Date Prep: 08.27.18
Parent Sample Id: 596609-009 MS Sample Id: 596609-009 S MSD Sample Id: 596609-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	149	287	428	97	432	99	90-110	1	20	mg/kg	08.27.18 17:39	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3061362 Matrix: Soil Date Prep: 08.27.18
Parent Sample Id: 597070-002 MS Sample Id: 597070-002 S MSD Sample Id: 597070-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	91.9	248	340	100	336	98	90-110	1	20	mg/kg	08.27.18 16:17	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3061397 Matrix: Solid Date Prep: 08.27.18
MB Sample Id: 7661243-1-BLK LCS Sample Id: 7661243-1-BKS LCSD Sample Id: 7661243-1-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)	<15.0	1000	915	92	1020	102	70-135	11	20	mg/kg	08.27.18 12:35	
Diesel Range Organics (DRO)	<15.0	1000	935	94	1050	105	70-135	12	20	mg/kg	08.27.18 12:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		113		126		70-135	%	08.27.18 12:35
o-Terphenyl	100		100		109		70-135	%	08.27.18 12:35

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 597096

LT Environmental, Inc.

Golden Child 2RP-4636

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3061397 — Matrix: Soil — Date Prep: 08.27.18
Parent Sample Id: 596931-009 — MS Sample Id: 596931-009 S — MSD Sample Id: 596931-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	888	89	886	89	70-135	0	20	mg/kg	08.27.18 13:35	
Diesel Range Organics (DRO)	<15.0	999	917	92	925	93	70-135	1	20	mg/kg	08.27.18 13:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		112		70-135	%	08.27.18 13:35
o-Terphenyl	101		102		70-135	%	08.27.18 13:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061402 — Matrix: Solid — Date Prep: 08.27.18
MB Sample Id: 7661244-1-BLK — LCS Sample Id: 7661244-1-BKS — LCSD Sample Id: 7661244-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.103	102	70-130	5	35	mg/kg	08.27.18 14:54	
Toluene	<0.00200	0.100	0.104	104	0.104	103	70-130	0	35	mg/kg	08.27.18 14:54	
Ethylbenzene	<0.00200	0.100	0.115	115	0.110	109	70-130	4	35	mg/kg	08.27.18 14:54	
m,p-Xylenes	<0.00401	0.200	0.223	112	0.211	104	70-130	6	35	mg/kg	08.27.18 14:54	
o-Xylene	<0.00200	0.100	0.103	103	0.0973	96	70-130	6	35	mg/kg	08.27.18 14:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		91		70-130	%	08.27.18 14:54
4-Bromofluorobenzene	94		94		91		70-130	%	08.27.18 14:54

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3061402 — Matrix: Soil — Date Prep: 08.27.18
Parent Sample Id: 596507-003 — MS Sample Id: 596507-003 S — MSD Sample Id: 596507-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0749	75	0.0881	88	70-130	16	35	mg/kg	08.27.18 15:36	
Toluene	<0.00200	0.0998	0.0548	55	0.0952	95	70-130	54	35	mg/kg	08.27.18 15:36	XF
Ethylbenzene	<0.00200	0.0998	0.0424	42	0.0811	81	70-130	63	35	mg/kg	08.27.18 15:36	XF
m,p-Xylenes	<0.00399	0.200	0.0800	40	0.156	78	70-130	64	35	mg/kg	08.27.18 15:36	XF
o-Xylene	<0.00200	0.0998	0.0377	38	0.0700	70	70-130	60	35	mg/kg	08.27.18 15:36	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		78		70-130	%	08.27.18 15:36
4-Bromofluorobenzene	94		93		70-130	%	08.27.18 15:36

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

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | San Antonio, Texas (210-509-3334) | Phoenix, Arizona (480-355-0900)

Dallas Texas (214-902-0300) | Midland, Texas (432-704-5251)

www.xenco.com

Xenco Quote #

Xenco Job # 597096

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. Permian Office

Company Address: 3300 N "A" St. Building 1 Unit 103 Midland, TX 79705

Email: abaker@ltenv.com Phone No: (432) 704-5178

Project Contact: Adrian Baker

Samplers's Name: Lydia Lambaday

Project Information

Project/Name/Number: Golden Child 2RP-4636

Project Location: NM Eddy

Invoice To: XTO Energy - Kyle Littrell

PO Number:

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX 8021 (only BTEX)	TPH (DRO, GRO, MRO) 8015	Chloride (300.0)	Field Comments
1	SW09	2'	08/23/18	17:10	S	1								X	X	X	X	
2	SW10	2'		17:15	S	1								X	X	X	X	
3	SW11	2'		17:25	S	1								X	X	X	X	
4	FS10	4'		17:20	S	1								X	X	X	X	
5	BH01	24'		17:30	S	1								X	X	X	X	24' bgs
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)

- [X] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/23/18 7:15	Pac-N-Mail Cooler	2 Pac-N-Mail Cooler	8/24 15:30	2 8/27 10:00
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X; Cooler Temp. 1.8; Thermo. Corr. Factor RS D

Notice: 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 loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/27/2018 10:00:00 AM

Work Order #: 597096

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**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: Connie Hernandez Date: 08/27/2018

Connie Hernandez

Checklist reviewed by: Jessica Kramer Date: 08/27/2018

Jessica Kramer

Analytical Report 645425

for

LT Environmental, Inc.

Project Manager: Aimee Cole

Goldenchild CTB

12-DEC-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

12-DEC-19

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

Reference: XENCO Report No(s): **645425**
Goldenchild CTB
Project Address: Rural Eddy County

Aimee Cole:

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) 645425. 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. 645425 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS11	S	12-04-19 10:05	4.5 ft	645425-001
FS12	S	12-04-19 10:15	4.5 ft	645425-002
FS13	S	12-04-19 10:20	3 ft	645425-003
FS14	S	12-04-19 11:15	5 ft	645425-004
FS15	S	12-04-19 12:00	4 ft	645425-005
FS16	S	12-04-19 11:50	2.5 ft	645425-006
FS17	S	12-04-19 13:40	4.5 ft	645425-007
FS18	S	12-04-19 14:00	1.5 ft	645425-008
FS19	S	12-04-19 14:35	1 ft	645425-009
FS20	S	12-04-19 11:05	5.5 ft	645425-010
FS21	S	12-04-19 11:30	4 ft	645425-011
FS22	S	12-04-19 15:55	4 ft	645425-012
SW12	S	12-04-19 10:25	2 ft	645425-013
SW13	S	12-04-19 11:17	1.5 ft	645425-014
SW14	S	12-04-19 14:45	0.5 ft	645425-015
SW15	S	12-04-19 11:40	2.5 ft	645425-016
SW16	S	12-04-19 11:30	1 ft	645425-017
SW17	S	12-04-19 11:00	2 ft	645425-018
SW18	S	12-04-19 10:50	1 ft	645425-019
SW19	S	12-04-19 15:50	2 ft	645425-020

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Goldenchild CTB

Project ID:
Work Order Number(s): *645425*

Report Date: *12-DEC-19*
Date Received: *12/06/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109775 BTEX by EPA 8021B

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

Batch: LBA-3109879 Chloride by EPA 300

Lab Sample ID 645425-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 645425-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015.

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

Certificate of Analysis Summary 645425

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id:

Contact: Aimee Cole

Project Location: Rural Eddy County

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645425-001		645425-002		645425-003		645425-004		645425-005		645425-006	
	Field Id:	FS11		FS12		FS13		FS14		FS15		FS16	
	Depth:	4.5- ft		4.5- ft		3- ft		5- ft		4- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-19 10:05		Dec-04-19 10:15		Dec-04-19 10:20		Dec-04-19 11:15		Dec-04-19 12:00		Dec-04-19 11:50	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25	
	Analyzed:	Dec-08-19 13:17		Dec-08-19 13:38		Dec-08-19 13:58		Dec-08-19 14:18		Dec-08-19 14:38		Dec-08-19 14:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00397	0.00397	<0.00400	0.00400	<0.00402	0.00402	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30	
	Analyzed:	Dec-09-19 13:06		Dec-09-19 13:12		Dec-09-19 13:19		Dec-09-19 12:46		Dec-09-19 13:26		Dec-09-19 14:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2970	24.8	2770	25.0	969	24.8	752	5.00	2230	24.8	290	5.05
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00	
	Analyzed:	Dec-09-19 19:06		Dec-09-19 20:10		Dec-09-19 20:31		Dec-09-19 20:52		Dec-09-19 21:13		Dec-09-19 21:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 645425

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id:

Contact: Aimee Cole

Project Location: Rural Eddy County

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645425-007		645425-008		645425-009		645425-010		645425-011		645425-012	
	Field Id:	FS17		FS18		FS19		FS20		FS21		FS22	
	Depth:	4.5- ft		1.5- ft		1- ft		5.5- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-19 13:40		Dec-04-19 14:00		Dec-04-19 14:35		Dec-04-19 11:05		Dec-04-19 11:30		Dec-04-19 15:55	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25	
	Analyzed:	Dec-08-19 15:18		Dec-08-19 15:38		Dec-08-19 15:59		Dec-08-19 16:19		Dec-08-19 17:38		Dec-08-19 17:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00404	0.00404	<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30	
	Analyzed:	Dec-09-19 13:46		Dec-09-19 13:52		Dec-09-19 13:59		Dec-09-19 14:06		Dec-09-19 14:12		Dec-09-19 14:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1170	24.9	1680	25.1	567	4.96	3040	25.0	2950	24.8	1960	24.9
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00	
	Analyzed:	Dec-09-19 21:55		Dec-09-19 22:16		Dec-09-19 22:37		Dec-09-19 22:58		Dec-09-19 23:40		Dec-10-19 00:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0
Total GRO-DRO		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0
Total TPH		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 645425

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id:

Contact: Aimee Cole

Project Location: Rural Eddy County

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645425-013		645425-014		645425-015		645425-016		645425-017		645425-018	
	Field Id:	SW12		SW13		SW14		SW15		SW16		SW17	
	Depth:	2- ft		1.5- ft		0.5- ft		2.5- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-19 10:25		Dec-04-19 11:17		Dec-04-19 14:45		Dec-04-19 11:40		Dec-04-19 11:30		Dec-04-19 11:00	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25		Dec-07-19 15:25	
	Analyzed:	Dec-08-19 18:18		Dec-08-19 18:38		Dec-08-19 18:58		Dec-08-19 19:18		Dec-08-19 19:39		Dec-08-19 19:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00398	0.00398	<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401	<0.00397	0.00397
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00199	0.00199	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 11:30		Dec-09-19 10:45		Dec-09-19 10:45		Dec-09-19 10:45	
	Analyzed:	Dec-09-19 14:45		Dec-09-19 15:05		Dec-09-19 15:12		Dec-09-19 14:29		Dec-09-19 16:21		Dec-09-19 14:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		856	4.99	2370	25.1	1650	24.8	236	5.00	1140	25.2	188	4.95
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00		Dec-09-19 14:00	
	Analyzed:	Dec-10-19 00:22		Dec-10-19 00:43		Dec-10-19 01:04		Dec-10-19 01:26		Dec-10-19 01:47		Dec-10-19 02:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Total GRO-DRO		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8
Total TPH		<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9	<49.8	49.8

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 645425

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id:

Contact: Aimee Cole

Project Location: Rural Eddy County

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	645425-019		645425-020					
	Field Id:	SW18		SW19					
	Depth:	1- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Dec-04-19 10:50		Dec-04-19 15:50					
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Dec-07-19 15:25		Dec-07-19 15:25					
	Analyzed:	Dec-08-19 20:19		Dec-08-19 20:39					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Dec-09-19 10:45		Dec-09-19 10:45					
	Analyzed:	Dec-09-19 14:45		Dec-09-19 14:51					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		35.4	4.99	13.5	5.02				
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Dec-09-19 14:00		Dec-09-19 14:00					
	Analyzed:	Dec-10-19 02:29		Dec-10-19 02:50					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9				
Diesel Range Organics (DRO)		70.1	50.0	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9				
Total GRO-DRO		70.1	50.0	<49.9	49.9				
Total TPH		70.1	50.0	<49.9	49.9				

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-001	Date Collected:	12.04.19 10.05	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2970**	24.8	mg/kg	12.09.19 13.06		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 19.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 19.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.09.19 19.06	
o-Terphenyl	84-15-1	88	%	70-135	12.09.19 19.06	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-001	Date Collected:	12.04.19 10.05	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 13.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 13.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.08.19 13.17	
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.08.19 13.17	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-002	Date Collected:	12.04.19 10.15	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2770**	25.0	mg/kg	12.09.19 13.12		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 20.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 20.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 20.10	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 20.10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.09.19 20.10	
o-Terphenyl	84-15-1	91	%	70-135	12.09.19 20.10	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-002	Date Collected:	12.04.19 10.15	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.08.19 13.38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.08.19 13.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.08.19 13.38	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.08.19 13.38	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-003	Date Collected:	12.04.19 10.20	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**969**	24.8	mg/kg	12.09.19 13.19		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 20.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 20.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 20.31	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 20.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.09.19 20.31	
o-Terphenyl	84-15-1	90	%	70-135	12.09.19 20.31	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-003	Date Collected:	12.04.19 10.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.08.19 13.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.19 13.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 13.58	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.08.19 13.58	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-004	Date Collected:	12.04.19 11.15	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**752**	5.00	mg/kg	12.09.19 12.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 20.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 20.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 20.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 20.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 20.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.09.19 20.52	
o-Terphenyl	84-15-1	90	%	70-135	12.09.19 20.52	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-004	Date Collected:	12.04.19 11.15	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.19 14.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.19 14.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.08.19 14.18	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.08.19 14.18	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-005	Date Collected:	12.04.19 12.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2230**	24.8	mg/kg	12.09.19 13.26		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 21.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 21.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 21.13	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 21.13	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 21.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.09.19 21.13	
o-Terphenyl	84-15-1	89	%	70-135	12.09.19 21.13	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-005	Date Collected:	12.04.19 12.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.19 14.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.19 14.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.08.19 14.38	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.08.19 14.38	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-006	Date Collected:	12.04.19 11.50	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**290**	5.05	mg/kg	12.09.19 14.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 21.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 21.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 21.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 21.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 21.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.09.19 21.34	
o-Terphenyl	84-15-1	85	%	70-135	12.09.19 21.34	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-006	Date Collected:	12.04.19 11.50	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 14.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 14.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.08.19 14.58	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.08.19 14.58	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-007	Date Collected:	12.04.19 13.40	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1170**	24.9	mg/kg	12.09.19 13.46		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 21.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 21.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 21.55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 21.55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 21.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.09.19 21.55	
o-Terphenyl	84-15-1	88	%	70-135	12.09.19 21.55	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-007	Date Collected:	12.04.19 13.40	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.08.19 15.18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.08.19 15.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.08.19 15.18	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.08.19 15.18	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-008	Date Collected:	12.04.19 14.00	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1680**	25.1	mg/kg	12.09.19 13.52		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 22.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 22.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 22.16	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 22.16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 22.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.09.19 22.16	
o-Terphenyl	84-15-1	89	%	70-135	12.09.19 22.16	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-008	Date Collected:	12.04.19 14.00	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 15.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 15.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.08.19 15.38	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.08.19 15.38	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id: **FS19** Matrix: Soil Date Received:12.06.19 08.30
Lab Sample Id: 645425-009 Date Collected: 12.04.19 14.35 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 12.09.19 11.30 Basis: Wet Weight
Seq Number: 3109879 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**567**	4.96	mg/kg	12.09.19 13.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 12.09.19 14.00 Basis: Wet Weight
Seq Number: 3109954 SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 22.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 22.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 22.37	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 22.37	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 22.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.09.19 22.37	
o-Terphenyl	84-15-1	89	%	70-135	12.09.19 22.37	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-009	Date Collected:	12.04.19 14.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.08.19 15.59	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.08.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.08.19 15.59	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 15.59	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-010	Date Collected:	12.04.19 11.05	Sample Depth:	5.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3040**	25.0	mg/kg	12.09.19 14.06		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 22.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 22.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 22.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 22.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 22.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.09.19 22.58	
o-Terphenyl	84-15-1	89	%	70-135	12.09.19 22.58	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-010	Date Collected:	12.04.19 11.05	Sample Depth:	5.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 16.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 16.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.08.19 16.19	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.08.19 16.19	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-011	Date Collected:	12.04.19 11.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2950**	24.8	mg/kg	12.09.19 14.12		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 23.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 23.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 23.40	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 23.40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 23.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.09.19 23.40	
o-Terphenyl	84-15-1	89	%	70-135	12.09.19 23.40	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-011	Date Collected:	12.04.19 11.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.08.19 17.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.19 17.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.08.19 17.38	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.08.19 17.38	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-012	Date Collected:	12.04.19 15.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1960**	24.9	mg/kg	12.09.19 14.39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 00.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 00.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 00.01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 00.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 00.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.10.19 00.01	
o-Terphenyl	84-15-1	90	%	70-135	12.10.19 00.01	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-012	Date Collected:	12.04.19 15.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.08.19 17.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.19 17.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.08.19 17.58	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.08.19 17.58	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-013	Date Collected:	12.04.19 10.25	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**856**	4.99	mg/kg	12.09.19 14.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 00.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 00.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 00.22	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 00.22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 00.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.10.19 00.22	
o-Terphenyl	84-15-1	90	%	70-135	12.10.19 00.22	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-013	Date Collected:	12.04.19 10.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 18.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 18.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 18.18	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.08.19 18.18	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-014	Date Collected:	12.04.19 11.17	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2370**	25.1	mg/kg	12.09.19 15.05		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 00.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 00.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 00.43	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 00.43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 00.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.10.19 00.43	
o-Terphenyl	84-15-1	90	%	70-135	12.10.19 00.43	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-014	Date Collected:	12.04.19 11.17	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.08.19 18.38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.08.19 18.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.08.19 18.38	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.08.19 18.38	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-015	Date Collected:	12.04.19 14.45	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 11.30	Basis:	Wet Weight
Seq Number:	3109879			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1650**	24.8	mg/kg	12.09.19 15.12		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 01.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 01.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 01.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 01.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 01.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.10.19 01.04	
o-Terphenyl	84-15-1	89	%	70-135	12.10.19 01.04	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-015	Date Collected:	12.04.19 14.45	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.19 18.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.19 18.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.08.19 18.58	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.08.19 18.58	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-016	Date Collected:	12.04.19 11.40	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 10.45	Basis:	Wet Weight
Seq Number:	3109877			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**236**	5.00	mg/kg	12.09.19 14.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 01.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 01.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 01.26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 01.26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 01.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.10.19 01.26	
o-Terphenyl	84-15-1	85	%	70-135	12.10.19 01.26	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-016	Date Collected:	12.04.19 11.40	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 19.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 19.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 19.18	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.08.19 19.18	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-017	Date Collected:	12.04.19 11.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 10.45	Basis:	Wet Weight
Seq Number:	3109877			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	25.2	mg/kg	12.09.19 16.21		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 01.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 01.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 01.47	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 01.47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 01.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.10.19 01.47	
o-Terphenyl	84-15-1	88	%	70-135	12.10.19 01.47	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-017	Date Collected:	12.04.19 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.08.19 19.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.19 19.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.08.19 19.39	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 19.39	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-018	Date Collected:	12.04.19 11.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 10.45	Basis:	Wet Weight
Seq Number:	3109877			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	4.95	mg/kg	12.09.19 14.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 02.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 02.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 02.08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 02.08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 02.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.10.19 02.08	
o-Terphenyl	84-15-1	90	%	70-135	12.10.19 02.08	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW17**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-018	Date Collected:	12.04.19 11.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.08.19 19.59	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.08.19 19.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.08.19 19.59	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 19.59	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-019	Date Collected:	12.04.19 10.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 10.45	Basis:	Wet Weight
Seq Number:	3109877			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.4**	4.99	mg/kg	12.09.19 14.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 02.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**70.1**	50.0	mg/kg	12.10.19 02.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 02.29	U	1
Total GRO-DRO	PHC628	**70.1**	50.0	mg/kg	12.10.19 02.29		1
Total TPH	PHC635	**70.1**	50.0	mg/kg	12.10.19 02.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.10.19 02.29	
o-Terphenyl	84-15-1	89	%	70-135	12.10.19 02.29	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW18**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-019	Date Collected:	12.04.19 10.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.08.19 20.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.19 20.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.08.19 20.19	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.08.19 20.19	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-020	Date Collected:	12.04.19 15.50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.09.19 10.45	Basis:	Wet Weight
Seq Number:	3109877			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.5**	5.02	mg/kg	12.09.19 14.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	12.09.19 14.00	Basis:	Wet Weight
Seq Number:	3109954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 02.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 02.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 02.50	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 02.50	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 02.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.10.19 02.50	
o-Terphenyl	84-15-1	87	%	70-135	12.10.19 02.50	

Certificate of Analytical Results 645425

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW19**	Matrix:	Soil	Date Received:	12.06.19 08.30
Lab Sample Id:	645425-020	Date Collected:	12.04.19 15.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	12.07.19 15.25	Basis:	Wet Weight
Seq Number:	3109775			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.19 20.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.19 20.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.08.19 20.39	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.08.19 20.39	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 645425

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109877 — Matrix: Solid — Date Prep: 12.09.19
MB Sample Id: 7691969-1-BLK — LCS Sample Id: 7691969-1-BKS — LCSD Sample Id: 7691969-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	263	105	266	106	90-110	1	20	mg/kg	12.09.19 12:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109879 — Matrix: Solid — Date Prep: 12.09.19
MB Sample Id: 7691970-1-BLK — LCS Sample Id: 7691970-1-BKS — LCSD Sample Id: 7691970-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	251	100	251	100	90-110	0	20	mg/kg	12.09.19 12:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109877 — Matrix: Soil — Date Prep: 12.09.19
Parent Sample Id: 645405-001 — MS Sample Id: 645405-001 S — MSD Sample Id: 645405-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.96	249	241	96	241	96	90-110	0	20	mg/kg	12.09.19 13:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109877 — Matrix: Soil — Date Prep: 12.09.19
Parent Sample Id: 645465-002 — MS Sample Id: 645465-002 S — MSD Sample Id: 645465-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	89.2	251	326	94	328	95	90-110	1	20	mg/kg	12.09.19 12:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3109879 — Matrix: Soil — Date Prep: 12.09.19
Parent Sample Id: 645425-004 — MS Sample Id: 645425-004 S — MSD Sample Id: 645425-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	752	250	960	83	961	84	90-110	0	20	mg/kg	12.09.19 12:53	X

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

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

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

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

Final 1.000

QC Summary 645425

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3109879 Matrix: Soil Date Prep: 12.09.19
Parent Sample Id: 645425-006 MS Sample Id: 645425-006 S MSD Sample Id: 645425-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	290	253	530	95	530	95	90-110	0	20	mg/kg	12.09.19 14:26	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109954 Matrix: Solid Date Prep: 12.09.19
MB Sample Id: 7691990-1-BLK LCS Sample Id: 7691990-1-BKS LCSD Sample Id: 7691990-1-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)	<15.0	1000	825	83	828	83	70-135	0	20	mg/kg	12.09.19 18:24	
Diesel Range Organics (DRO)	<15.0	1000	835	84	856	86	70-135	2	20	mg/kg	12.09.19 18:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	81		111		94		70-135	%	12.09.19 18:24
o-Terphenyl	84		100		96		70-135	%	12.09.19 18:24

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109954 Matrix: Solid Date Prep: 12.09.19
MB Sample Id: 7691990-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 18:03	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3109954 Matrix: Soil Date Prep: 12.09.19
Parent Sample Id: 645425-001 MS Sample Id: 645425-001 S MSD Sample Id: 645425-001 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)	<15.0	997	1030	103	1040	104	70-135	1	20	mg/kg	12.09.19 19:28	
Diesel Range Organics (DRO)	<15.0	997	964	97	981	98	70-135	2	20	mg/kg	12.09.19 19:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		99		70-135	%	12.09.19 19:28
o-Terphenyl	95		95		70-135	%	12.09.19 19:28

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 645425

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109775 — Matrix: Solid — Date Prep: 12.07.19
MB Sample Id: 7691902-1-BLK — LCS Sample Id: 7691902-1-BKS — LCSD Sample Id: 7691902-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0995	100	0.0989	99	70-130	1	35	mg/kg	12.08.19 11:17	
Toluene	<0.000456	0.100	0.0951	95	0.0981	98	70-130	3	35	mg/kg	12.08.19 11:17	
Ethylbenzene	<0.000565	0.100	0.0909	91	0.0949	95	70-130	4	35	mg/kg	12.08.19 11:17	
m,p-Xylenes	<0.00101	0.200	0.183	92	0.193	97	70-130	5	35	mg/kg	12.08.19 11:17	
o-Xylene	<0.000344	0.100	0.0924	92	0.0999	100	70-130	8	35	mg/kg	12.08.19 11:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		94		98		70-130	%	12.08.19 11:17
4-Bromofluorobenzene	91		100		107		70-130	%	12.08.19 11:17

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3109775 — Matrix: Soil — Date Prep: 12.07.19
Parent Sample Id: 645425-001 — MS Sample Id: 645425-001 S — MSD Sample Id: 645425-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0830	83	0.0788	79	70-130	5	35	mg/kg	12.08.19 11:58	
Toluene	<0.000455	0.0998	0.0793	79	0.0797	80	70-130	1	35	mg/kg	12.08.19 11:58	
Ethylbenzene	<0.000564	0.0998	0.0765	77	0.0788	79	70-130	3	35	mg/kg	12.08.19 11:58	
m,p-Xylenes	<0.00101	0.200	0.152	76	0.159	80	70-130	5	35	mg/kg	12.08.19 11:58	
o-Xylene	<0.000344	0.0998	0.0756	76	0.0794	80	70-130	5	35	mg/kg	12.08.19 11:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	12.08.19 11:58
4-Bromofluorobenzene	104		111		70-130	%	12.08.19 11:58

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

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 Crasibad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 645 425

Page 1 of 2

Project Manager:	Aimee Cole	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO
Address:	3300 North A Street	Address:	3104 E. Greene Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	720 384 7365	Email:	acole@ltenv.com

Work Order Comments

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

Project Name:	Goldenchild CTB	Turn Around	
Project Number:		Routine ☐	
Project Location	Rural Eddy County	Rush: 5 DAY	
Sampler's Name:	Anna Byers	Due Date:	
PO #:	2RP-4636	Quote #:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.5	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	20
Sample Custody Seals:	Yes (No) N/A		

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
	FS11	S	12/4/19	1005	4.5'	1	X	X	X	
	FS12			1015	4.5'	1				
	FS13			1020	3'	1				
	FS14			1115	5'	1				
	FS15			1200	4'	1				
	FS16			1150	2.5'	1				
	FS17			1340	4.5'	1				
	FS18			1400	1.5'	1				
	FS19			1435	1'	1				
	FS20			1105	5.5'	1				

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

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

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
1	Anna Byers	Robert Magee	12/06/19 @ 0820	2 Robert Magee		12/6/19 0830
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

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 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com

Work Order No: 645425

Page 2 of 2

Project Manager:	Aimee Cole	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO
Address:	3300 North A Street	Address:	3104 E. Greene Street
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	720 384 7365	Email:	acole@ltenv.com & abyes@ltenv.com

Work Order Comments

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

Project Name:	Goldenchild CTB	Turn Around	
Project Number:		Routine ☐	
Project Location	Rural Eddy County	Rush: 5DAY	
Sampler's Name:	Anna Byers	Due Date:	
PO #:	2RP-4636	Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
	FS21	S	12/4/19	1130	4'						
	FS22			1555	4'						
	SW12			1025	2'						
	SW13			1117	1.5'						
	SW14			1445	0.5'						
	SW15			1140	2.5'						
	SW16			1130	1'						
	SW17			1100	2'						
	SW18			1050	1'						
	SW19			1550	2'						

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers		12/06/19 @ 0820	2			12/6/19 0830
				4			
				6			

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number **53694**

Date/Time: 12/06/19 13:41
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7771 7682 4669

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
645425-001	S	FS11	12/04/19 10:05	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-001	S	FS11	12/04/19 10:05	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-001	S	FS11	12/04/19 10:05	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-002	S	FS12	12/04/19 10:15	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-002	S	FS12	12/04/19 10:15	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-002	S	FS12	12/04/19 10:15	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-003	S	FS13	12/04/19 10:20	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-003	S	FS13	12/04/19 10:20	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-003	S	FS13	12/04/19 10:20	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-004	S	FS14	12/04/19 11:15	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-004	S	FS14	12/04/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-004	S	FS14	12/04/19 11:15	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-005	S	FS15	12/04/19 12:00	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-005	S	FS15	12/04/19 12:00	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-005	S	FS15	12/04/19 12:00	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-006	S	FS16	12/04/19 11:50	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-006	S	FS16	12/04/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-006	S	FS16	12/04/19 11:50	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-007	S	FS17	12/04/19 13:40	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-007	S	FS17	12/04/19 13:40	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-007	S	FS17	12/04/19 13:40	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-008	S	FS18	12/04/19 14:00	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-008	S	FS18	12/04/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-008	S	FS18	12/04/19 14:00	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-009	S	FS19	12/04/19 14:35	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **53694**

Date/Time: 12/06/19 13:41
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7771 7682 4669

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
645425-009	S	FS19	12/04/19 14:35	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-009	S	FS19	12/04/19 14:35	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-010	S	FS20	12/04/19 11:05	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-010	S	FS20	12/04/19 11:05	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-010	S	FS20	12/04/19 11:05	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-011	S	FS21	12/04/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-011	S	FS21	12/04/19 11:30	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-011	S	FS21	12/04/19 11:30	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-012	S	FS22	12/04/19 15:55	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-012	S	FS22	12/04/19 15:55	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-012	S	FS22	12/04/19 15:55	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-013	S	SW12	12/04/19 10:25	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-013	S	SW12	12/04/19 10:25	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-013	S	SW12	12/04/19 10:25	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-014	S	SW13	12/04/19 11:17	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-014	S	SW13	12/04/19 11:17	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-014	S	SW13	12/04/19 11:17	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-015	S	SW14	12/04/19 14:45	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-015	S	SW14	12/04/19 14:45	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-015	S	SW14	12/04/19 14:45	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-016	S	SW15	12/04/19 11:40	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-016	S	SW15	12/04/19 11:40	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-016	S	SW15	12/04/19 11:40	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-017	S	SW16	12/04/19 11:30	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-017	S	SW16	12/04/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number **53694**

Date/Time: 12/06/19 13:41
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7771 7682 4669

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
645425-017	S	SW16	12/04/19 11:30	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-018	S	SW17	12/04/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-018	S	SW17	12/04/19 11:00	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-018	S	SW17	12/04/19 11:00	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-019	S	SW18	12/04/19 10:50	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	
645425-019	S	SW18	12/04/19 10:50	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-019	S	SW18	12/04/19 10:50	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-020	S	SW19	12/04/19 15:50	SW8021B	BTEX by EPA 8021B	12/12/19	12/18/19	JKR	BZ BZME EBZ XYLENES	
645425-020	S	SW19	12/04/19 15:50	E300_CL	Chloride by EPA 300	12/12/19	06/01/20	JKR	CL	
645425-020	S	SW19	12/04/19 15:50	SW8015MOD_NM	TPH by SW8015 Mod	12/12/19	12/18/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 12/06/2019

Received By: Brianna Teel

Date Received: 12/09/2019 07:19

Cooler Temperature: 2.5

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 53694

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 12/06/2019 01:41 PM

Received By: Brianna Teel **Date Received:** 12/09/2019 07:19 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 12/09/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2019 08:30:00 AM

Work Order #: 645425

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Midland
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 12/06/2019

Checklist reviewed by: Jessica Kramer Date: 12/10/2019

Jessica Kramer

Analytical Report 653665

for

LT Environmental, Inc.

Project Manager: Dan Moir

Goldenchild CTB

012918021

26-FEB-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

26-FEB-20

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

Reference: XENCO Report No(s): **653665**
Goldenchild 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) 653665. 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. 653665 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 653665

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW20	S	02-25-20 11:30	0 - 5 ft	653665-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Goldenchild CTB

Project ID: *012918021*
Work Order Number(s): *653665*

Report Date: *26-FEB-20*
Date Received: *02/25/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117673 BTEX by EPA 8021B

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

Certificate of Analysis Summary 653665

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id: 012918021
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Feb-25-20 03:43 pm
Report Date: 26-FEB-20
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	653665-001					
	Field Id:	SW20					
	Depth:	0-5 ft					
	Matrix:	SOIL					
	Sampled:	Feb-25-20 11:30					
BTEX by EPA 8021B	***Extracted:***	Feb-25-20 16:00					
	Analyzed:	Feb-25-20 19:54					
	Units/RL:	mg/kg	RL				
Benzene		<0.00198	0.00198				
Toluene		<0.00198	0.00198				
Ethylbenzene		<0.00198	0.00198				
m,p-Xylenes		<0.00397	0.00397				
o-Xylene		<0.00198	0.00198				
Total Xylenes		<0.00198	0.00198				
Total BTEX		<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	Feb-25-20 17:00					
	Analyzed:	Feb-25-20 17:33					
	Units/RL:	mg/kg	RL				
Chloride		171	9.92				
TPH by SW8015 Mod	***Extracted:***	Feb-25-20 17:30					
	Analyzed:	Feb-26-20 07:43					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0				
Total GRO-DRO		<50.0	50.0				
Total TPH		<50.0	50.0				

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 653665

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	02.25.20 15.43
Lab Sample Id:	653665-001	Date Collected:	02.25.20 11.30	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.25.20 17.00	Basis:	Wet Weight
Seq Number:	3117676				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**171**	9.92	mg/kg	02.25.20 17.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	02.25.20 17.30	Basis:	Wet Weight
Seq Number:	3117697				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.26.20 07.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.26.20 07.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.26.20 07.43	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.26.20 07.43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.26.20 07.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.26.20 07.43	
o-Terphenyl	84-15-1	117	%	70-135	02.26.20 07.43	

Certificate of Analytical Results 653665

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**SW20**	Matrix:	Soil	Date Received:	02.25.20 15.43
Lab Sample Id:	653665-001	Date Collected:	02.25.20 11.30	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.25.20 16.00	Basis:	Wet Weight
Seq Number:	3117673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.25.20 19.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.25.20 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.25.20 19.54	
4-Bromofluorobenzene	460-00-4	94	%	70-130	02.25.20 19.54	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 653665

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3117676 Matrix: Solid Date Prep: 02.25.20
MB Sample Id: 7697408-1-BLK LCS Sample Id: 7697408-1-BKS LCSD Sample Id: 7697408-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	256	102	90-110	2	20	mg/kg	02.25.20 13:51	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3117676 Matrix: Soil Date Prep: 02.25.20
Parent Sample Id: 653581-005 MS Sample Id: 653581-005 S MSD Sample Id: 653581-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	154	200	373	110	370	107	90-110	1	20	mg/kg	02.25.20 14:12	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3117676 Matrix: Soil Date Prep: 02.25.20
Parent Sample Id: 653662-003 MS Sample Id: 653662-003 S MSD Sample Id: 653662-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	31.4	199	229	99	218	94	90-110	5	20	mg/kg	02.25.20 18:18	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3117697 Matrix: Solid Date Prep: 02.25.20
MB Sample Id: 7697467-1-BLK LCS Sample Id: 7697467-1-BKS LCSD Sample Id: 7697467-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1240	124	70-135	12	35	mg/kg	02.26.20 06:45	
Diesel Range Organics (DRO)	<50.0	1000	1320	132	1310	131	70-135	1	35	mg/kg	02.26.20 06:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		125		120		70-135	%	02.26.20 06:45
o-Terphenyl	130		116		116		70-135	%	02.26.20 06:45

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3117697 Matrix: Solid Date Prep: 02.25.20
MB Sample Id: 7697467-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.26.20 06:45	

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 653665

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3117697 | Matrix: Soil | Date Prep: 02.25.20
Parent Sample Id: 653655-001 | MS Sample Id: 653655-001 S | MSD Sample Id: 653655-001 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	1060	106	923	93	70-135	14	35	mg/kg	02.26.20 07:23	
Diesel Range Organics (DRO)	<50.1	1000	1160	116	1060	107	70-135	9	35	mg/kg	02.26.20 07:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		119		70-135	%	02.26.20 07:23
o-Terphenyl	133		126		70-135	%	02.26.20 07:23

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3117673 | Matrix: Solid | Date Prep: 02.25.20
MB Sample Id: 7697461-1-BLK | LCS Sample Id: 7697461-1-BKS | LCSD Sample Id: 7697461-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.111	111	70-130	2	35	mg/kg	02.25.20 17:51	
Toluene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	02.25.20 17:51	
Ethylbenzene	<0.00200	0.100	0.101	101	0.102	102	71-129	1	35	mg/kg	02.25.20 17:51	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.210	105	70-135	0	35	mg/kg	02.25.20 17:51	
o-Xylene	<0.00200	0.100	0.104	104	0.105	105	71-133	1	35	mg/kg	02.25.20 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		105		70-130	%	02.25.20 17:51
4-Bromofluorobenzene	96		94		94		70-130	%	02.25.20 17:51

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3117673 | Matrix: Soil | Date Prep: 02.25.20
Parent Sample Id: 653655-001 | MS Sample Id: 653655-001 S | MSD Sample Id: 653655-001 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	0.105	105	0.129	130	70-130	21	35	mg/kg	02.25.20 18:32	
Toluene	<0.00200	0.100	0.101	101	0.123	124	70-130	20	35	mg/kg	02.25.20 18:32	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.118	119	71-129	20	35	mg/kg	02.25.20 18:32	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.242	122	70-135	19	35	mg/kg	02.25.20 18:32	
o-Xylene	<0.00200	0.100	0.0995	100	0.120	121	71-133	19	35	mg/kg	02.25.20 18:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	02.25.20 18:32
4-Bromofluorobenzene	100		93		70-130	%	02.25.20 18:32

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

Final 1.000

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 453665

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 Street	Address:	3104 East Green Street
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com, acole@ltenv.com

Work Order Comments

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

Project Name:	Goldenchild CTB	Turn Around	
Project Number:	01291802I	Routine ☐	
Project Location		Rush: 24H	
Sampler's Name:		Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM 007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)	Sample Comments
	SW20	S	2.25.20	11 30	0-5'	1		X	X	X	

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

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
		2/25/2015:43	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02.25.2020 03.43.00 PM

Work Order #: 653665

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

Temperature Measuring device used : T-NM-007

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

*** 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: 02.25.2020

Checklist reviewed by: Jessica Kramer Date: 02.26.2020

Jessica Kramer

Analytical Report 653672

for

LT Environmental, Inc.

Project Manager: Dan Moir

Goldenchild CTB

012918021

26-FEB-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

26-FEB-20

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

Reference: XENCO Report No(s): **653672**
Goldenchild 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) 653672. 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. 653672 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 653672

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS23	S	02-25-20 13:45	5 ft	653672-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Goldenchild CTB

Project ID: *012918021*
Work Order Number(s): *653672*

Report Date: *26-FEB-20*
Date Received: *02/25/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3117673 BTEX by EPA 8021B

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

Certificate of Analysis Summary 653672

LT Environmental, Inc., Arvada, CO

Project Name: Goldenchild CTB

Project Id: 012918021
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Feb-25-20 03:43 pm
Report Date: 26-FEB-20
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	653672-001					
	Field Id:	FS23					
	Depth:	5- ft					
	Matrix:	SOIL					
	Sampled:	Feb-25-20 13:45					
BTEX by EPA 8021B	***Extracted:***	Feb-25-20 16:00					
	Analyzed:	Feb-25-20 20:14					
	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:***	Feb-25-20 17:00					
	Analyzed:	Feb-25-20 17:44					
	Units/RL:	mg/kg	RL				
Chloride		25.9	9.98				
TPH by SW8015 Mod	***Extracted:***	Feb-25-20 17:30					
	Analyzed:	Feb-26-20 08:02					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0				
Total GRO-DRO		<50.0	50.0				
Total TPH		<50.0	50.0				

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 653672

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id: **FS23** Matrix: Soil Date Received:02.25.20 15.43
Lab Sample Id: 653672-001 Date Collected: 02.25.20 13.45 Sample Depth: 5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 02.25.20 17.00 Basis: Wet Weight
Seq Number: 3117676

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.9**	9.98	mg/kg	02.25.20 17.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 02.25.20 17.30 Basis: Wet Weight
Seq Number: 3117697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.26.20 08.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.26.20 08.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.26.20 08.02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.26.20 08.02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.26.20 08.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.26.20 08.02	
o-Terphenyl	84-15-1	114	%	70-135	02.26.20 08.02	

Certificate of Analytical Results 653672

LT Environmental, Inc., Arvada, CO

Goldenchild CTB

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	02.25.20 15.43
Lab Sample Id:	653672-001	Date Collected:	02.25.20 13.45	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	02.25.20 16.00	Basis:	Wet Weight
Seq Number:	3117673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.25.20 20.14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.25.20 20.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.25.20 20.14	
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.25.20 20.14	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 653672

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117676 — Matrix: Solid — Date Prep: 02.25.20
MB Sample Id: 7697408-1-BLK — LCS Sample Id: 7697408-1-BKS — LCSD Sample Id: 7697408-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	256	102	90-110	2	20	mg/kg	02.25.20 13:51	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117676 — Matrix: Soil — Date Prep: 02.25.20
Parent Sample Id: 653581-005 — MS Sample Id: 653581-005 S — MSD Sample Id: 653581-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	154	200	373	110	370	107	90-110	1	20	mg/kg	02.25.20 14:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3117676 — Matrix: Soil — Date Prep: 02.25.20
Parent Sample Id: 653662-003 — MS Sample Id: 653662-003 S — MSD Sample Id: 653662-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	31.4	199	229	99	218	94	90-110	5	20	mg/kg	02.25.20 18:18	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117697 — Matrix: Solid — Date Prep: 02.25.20
MB Sample Id: 7697467-1-BLK — LCS Sample Id: 7697467-1-BKS — LCSD Sample Id: 7697467-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1240	124	70-135	12	35	mg/kg	02.26.20 06:45	
Diesel Range Organics (DRO)	<50.0	1000	1320	132	1310	131	70-135	1	35	mg/kg	02.26.20 06:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		125		120		70-135	%	02.26.20 06:45
o-Terphenyl	130		116		116		70-135	%	02.26.20 06:45

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3117697 — Matrix: Solid — Date Prep: 02.25.20
MB Sample Id: 7697467-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.26.20 06:45	

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 653672

LT Environmental, Inc.

Goldenchild CTB

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3117697 | Matrix: Soil | Date Prep: 02.25.20
Parent Sample Id: 653655-001 | MS Sample Id: 653655-001 S | MSD Sample Id: 653655-001 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	1060	106	923	93	70-135	14	35	mg/kg	02.26.20 07:23	
Diesel Range Organics (DRO)	<50.1	1000	1160	116	1060	107	70-135	9	35	mg/kg	02.26.20 07:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		119		70-135	%	02.26.20 07:23
o-Terphenyl	133		126		70-135	%	02.26.20 07:23

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3117673 | Matrix: Solid | Date Prep: 02.25.20
MB Sample Id: 7697461-1-BLK | LCS Sample Id: 7697461-1-BKS | LCSD Sample Id: 7697461-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.111	111	70-130	2	35	mg/kg	02.25.20 17:51	
Toluene	<0.00200	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	02.25.20 17:51	
Ethylbenzene	<0.00200	0.100	0.101	101	0.102	102	71-129	1	35	mg/kg	02.25.20 17:51	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.210	105	70-135	0	35	mg/kg	02.25.20 17:51	
o-Xylene	<0.00200	0.100	0.104	104	0.105	105	71-133	1	35	mg/kg	02.25.20 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		105		70-130	%	02.25.20 17:51
4-Bromofluorobenzene	96		94		94		70-130	%	02.25.20 17:51

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3117673 | Matrix: Soil | Date Prep: 02.25.20
Parent Sample Id: 653655-001 | MS Sample Id: 653655-001 S | MSD Sample Id: 653655-001 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	0.105	105	0.129	130	70-130	21	35	mg/kg	02.25.20 18:32	
Toluene	<0.00200	0.100	0.101	101	0.123	124	70-130	20	35	mg/kg	02.25.20 18:32	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.118	119	71-129	20	35	mg/kg	02.25.20 18:32	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.242	122	70-135	19	35	mg/kg	02.25.20 18:32	
o-Xylene	<0.00200	0.100	0.0995	100	0.120	121	71-133	19	35	mg/kg	02.25.20 18:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	02.25.20 18:32
4-Bromofluorobenzene	100		93		70-130	%	02.25.20 18:32

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

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 653672

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 Street	Address:	3104 East Green Street
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432-236-3849	Email:	slo@ltenv.com, dmoir@ltenv.com, acole@ltenv.com

Work Order Comments

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

Project Name:	Golden Child CTB	Turn Around	
Project Number:	01291802I	Routine ☐	
Project Location		Rush: 24H	
Sampler's Name:		Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	1.8	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	1

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)	Sample Comments
	FS23	S	2.25.20	1345	5'	1		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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		2/25/2015	4		
			6		

Revised Date 022619 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02.25.2020 03.43.00 PM

Work Order #: 653672

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

Temperature Measuring device used : T-NM-007

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

*** 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: 02.25.2020

Checklist reviewed by: Jessica Kramer Date: 02.26.2020

Jessica Kramer

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

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

CONDITIONS

Action 4875

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 4875
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Closable for now, perhaps some additional work at site close out relative to section 13 of Rule 29	9/7/2021