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

March 23, 2020

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

RE: Closure Request
Poker Lake Unit Big Sinks Federal 25 Battery
Remediation Permit Numbers 2RP-2526, 2RP-4398, 2RP-4775, 2RP-4779
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 Poker Lake Unit (PLU) Big Sinks Federal 25 Battery (Site), located in Unit O, Section 25, Township 24 South, Range 30 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 following four separate events that caused the release of produced water and crude oil at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action for the release events.

The releases are 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 releases are categorized as a Tier IV sites in the Compliance Agreement, meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On October 1, 2014, a buried flow line developed a leak due to external corrosion. Approximately 109 barrels (bbls) of produced water and 10 bbls of crude oil were released onto the surface of the caliche well pad. Approximately 9,656 square feet of well pad was affected by the release. A vacuum truck was used to recover the free-standing fluid; approximately 75 bbls of produced water and 5 bbls of crude oil were recovered. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action

Form C-141 (Form C-141) on October 7, 2014, and was assigned Remediation Permit (RP) Number 2RP-2526 (Attachment 1).

On September 1, 2017, a corrosion hole developed below ground in the riser of the SWD discharge line. The line was isolated while the riser was exposed and repaired. Approximately 11.12 bbls of produced water were released. Approximately 6,054 square feet of caliche pad and 64 square feet of pasture south of the tank battery was affected by the release. A vacuum truck was used to recover the free-standing fluid; approximately 5 bbls of produced water were recovered from the pasture and southwest corner of the well pad. XTO reported the release to the NMOCD on a Form C-141 on September 18, 2017, and was assigned RP Number 2RP-4398.

On May 13, 2018, the heater-treater and flare scrubber loaded up due to closed valves on the produced water and oil tanks. Fluid was forced out of flare stack which resulted in a small fire. Approximately ¼ bbl of crude oil and 2 bbls of produced water were released. The fire affected a small area of the pad near the flare stack and approximately 60 feet into the pasture north of the flare stack. The fire extinguished itself. XTO reported the release to the NMOCD on a Form C-141 on May 25, 2018, and was assigned RP Number 2RP-4775.

On May 18, 2018, the flare line loaded up and caused fluid out of the flare stack, which resulted in a small fire. Approximately ¼ bbl of crude oil and produced water were released. The fire affected a small section of pad west of the flare. The fire extinguished itself. There was no impact to the pasture. XTO reported the release to the NMOCD on a Form C-141 on May 30, 2018, and was assigned RP Number 2RP-4779.

Although one of the releases occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Since the five releases occurred on the same well pad, excavation and sampling activities were completed to address and close all five releases simultaneously.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) well 320956103503001, located approximately 6,529 feet southwest of the Site. The water well has a depth to groundwater of 446 feet and a total depth of 480 feet. Ground surface elevation at the water well location is 3,408 feet above mean sea level (AMSL), which is approximately 48 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 2,162 feet west-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 low-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: 20,000 mg/kg.

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

The four historical releases occurred on the same well pad; therefore, site assessment and soil sampling activities were completed to address and close all releases simultaneously. Due to separate/distinct release areas and duplicative or sequential sample nomenclature the below site assessment and soil sampling summaries and associated figures and tables are separated by RP Number and/or release location on the pad.

RP Number 2RP-2526

During June 2018, LTE personnel inspected the Site to evaluate the release extent in the central area of the pad, associated with RP Number 2RP-2526. Preliminary soil samples SS7 through SS14 were collected within and around the release area to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

During February and April 2019, LTE personnel returned to the Site to oversee site assessment activities. Potholes were advanced via backhoe or trackhoe at 20 locations within and around the release area to confirm the lateral and vertical extent of impacted soil. On February 11, 2019, potholes were advanced to a depth of 4 feet bgs at the SS10 and SS12 preliminary soil sample locations and at additional assessment locations SS23, SS24, SS25, and SS27. Delineation soil samples were collected from each pothole from depths of 2 feet and 4 feet bgs. During April 2019, potholes PH01 through PH13, and PH17 were advanced to depths ranging from 4.5 feet to

16 feet bgs. Delineation soil samples were collected from each pothole from depths ranging from 0.5 feet to 16 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The pothole delineation soil sample locations are depicted on Figure 2 and Figure 3.

During February and October 2019, LTE personnel was at the Site to oversee excavation of impacted soil as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary and delineation soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Impacted soil was excavated to a depth ranging from 1 foot to 7 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floors of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW12 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 6 feet bgs. Composite soil samples FS01 through FS09 and FS09A were collected from the floor of the excavation from depths ranging from 1 foot to 7 feet bgs. The excavation extent and excavation soil sample locations are depicted on Figure 4. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The excavation measured approximately 2,000 square feet in area and was completed to a depth of 1 foot to 7 feet bgs. A total of approximately 275 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.

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

RP Number 2RP-4398

During June 2018, LTE personnel inspected the Site to evaluate the release extent in the southern area of the pad, associated with RP Number 2RP-4398. Preliminary soil samples SS15 through SS22 were collected within and around the release area to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 5, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from

weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

During October 2019, LTE personnel was at the Site to oversee excavation of impacted soil as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Impacted soil was excavated to a depth of 5 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floors of the excavation. Composite soil samples SW01 through SW04 were collected from the sidewalls of the excavation from depths ranging from 1 foot to 5 feet bgs. Composite soil samples FS01 and FS02 were collected from the floor of the excavation from a depth of 5 feet bgs. The excavation extent remained within the operations area surrounding the SWD riser.

Boreholes and potholes were advanced via hand auger or trackhoe at three locations surrounding the excavation to confirm the extent of soil impacts. Borehole BH01 and potholes PH01 and PH02 were advanced to a depth of 5 feet bgs. Delineation soil samples were collected from each borehole and pothole at 1-foot intervals to a depth of 5 feet bgs. Soil from the borehole and potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole and pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The preliminary soil sample locations, excavation extent and excavation soil sample locations, and delineation soil sample locations are depicted on Figure 5.

The soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The excavation measured approximately 340 square feet in area and was completed to a depth of 5 feet bgs. A total of approximately 65 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.

RP Number 2RP-4775 and 2RP-4779

During June 2018, LTE personnel inspected the Site to evaluate the release extent in the northern area of the pad, associated with RP Numbers 2RP-4775 and 2RP-4997. Preliminary soil samples SS1 through SS6 were collected within and around the release area to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 6, were selected based on information provided on the initial Form C-141 and field observations. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

During February and April 2019, LTE personnel returned to the Site to oversee site assessment activities. Potholes were advanced via backhoe at 6 locations within and around the release area to confirm the lateral and vertical extent of impacted soil. Potholes were advanced to a depth of 2 feet bgs at the SS1 and SS6 preliminary soil sample locations and at additional assessment locations PH01, PH02, PH14, and PH15. Delineation soil samples were collected from each pothole from depths ranging from 0.5 feet to 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2.

During February 2019, LTE personnel was at the Site to oversee excavation of impacted soil as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Impacted soil was excavated to a depth of 2 feet bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. Composite soil sample SW01 was collected from the sidewalls of the excavation from a depth ranging from the ground surface to 2 feet bgs. Composite soil sample FS01 was collected from the floor of the excavation from a depth of 2 feet bgs. The preliminary soil sample locations, excavation extent and excavation soil sample locations, and delineation soil sample locations are depicted on Figure 6.

The soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

The excavation measured approximately 150 square feet in area and was completed to a depth of 2 feet bgs. A total of approximately 12 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

RP Numbers 2RP-2526

Laboratory analytical results for preliminary soil samples SS7 through SS14, SS10A/SS10B, SS12A/SS12B, SS23/SS23A through SS25/SS25A, and SS27/SS27A and delineation soil samples collected from potholes PH01 through PH13, and PH17 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on visual observations and field screening activities, impacted soil was excavated from the release area. Laboratory analytical results for excavation soil samples SW01 through SW03, SW05 through SW12, FS01 through FS08, and FS09A, collected from the final excavation extent, indicated that BTEX,

GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for excavation soil samples SW04 and FS09 indicated that TPH and/or GRO/DRO concentrations initially exceeded the Closure Criteria. Additional soil was removed from these areas and subsequent excavation soil samples SW12 and FS09A were compliant with the Closure Criteria. Based on the laboratory analytical results, no further excavation was required. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

RP Number 2RP-4398

Laboratory analytical results for preliminary soil samples SS15 through SS22, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on visual observations, field screening activities, and elevated chloride concentrations, impacted soil was excavated from the release area. Laboratory analytical results for excavation soil samples SW01 through SW04, FS01, and FS02, collected from the final excavation extent, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Delineation soil sampling was completed to confirm the lateral and vertical extent impacted soil. Laboratory analytical results for the delineation soil samples collected from borehole BH01 and potholes PH01 and PH02, indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the laboratory analytical results, no further excavation was required. Laboratory analytical results are summarized in Table 2 and the complete laboratory analytical reports are included as Attachment 4.

RP Numbers 2RP-4775 and 2RP-4779

Laboratory analytical results for preliminary soil samples SS1/SS1A, SS2, SS4, SS5, SS6A, and delineation soil samples collected from potholes PH01, PH02, PH14, and PH15 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil samples SS3 and SS6 indicated that TPH and/or GRO/DRO concentrations exceeded the Closure Criteria. Based on visual observations and laboratory analytical results for the preliminary soil samples, impacted soil was excavated from the area around preliminary soil samples SS3 and SS6. Laboratory analytical results for excavation soil samples SW01 and FS01 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the laboratory analytical results, no further excavation was required. Laboratory analytical results are summarized in Table 3 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment and soil sampling activities were completed within and around the release areas to delineate the lateral and vertical extent of impacted soil resulting from historical releases of crude oil and produced water at the Site. Based on the site assessment activities, impacted soil

was excavated from three separate release areas. Laboratory analytical results for the excavation soil samples collected from the final excavation extents indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the excavation and delineation soil sample analytical results, no further remediation was required.

Initial response efforts, natural attenuation, and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Numbers 2RP-2526, 2RP-4398, 2RP-4775, and 2RP-4779. XTO backfilled the excavations with material purchased locally and recontoured the Site to match pre-existing site conditions. An updated NMOCD Form C-141 for each release 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
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations (2RP-2526)
Figure 3	Delineation Soil Sample Locations (2RP-2526)
Figure 4	Excavation Soil Sample Locations (2RP-2526)
Figure 5	Soil Sample Locations (2RP-4398)
Figure 6	Soil Sample Locations (2RP-4775 and 2RP-4779)
Table 1	Soil Analytical Results (2RP-2526)
Table 2	Soil Analytical Results (2RP-4398)
Table 3	Soil Analytical Results (2RP-4775 and 2RP-4779)
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-2526, 2RP-4398, 2RP-4775, 2RP-4779)

Attachment 2 Lithologic/Soil Sample Logs
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports

FIGURES

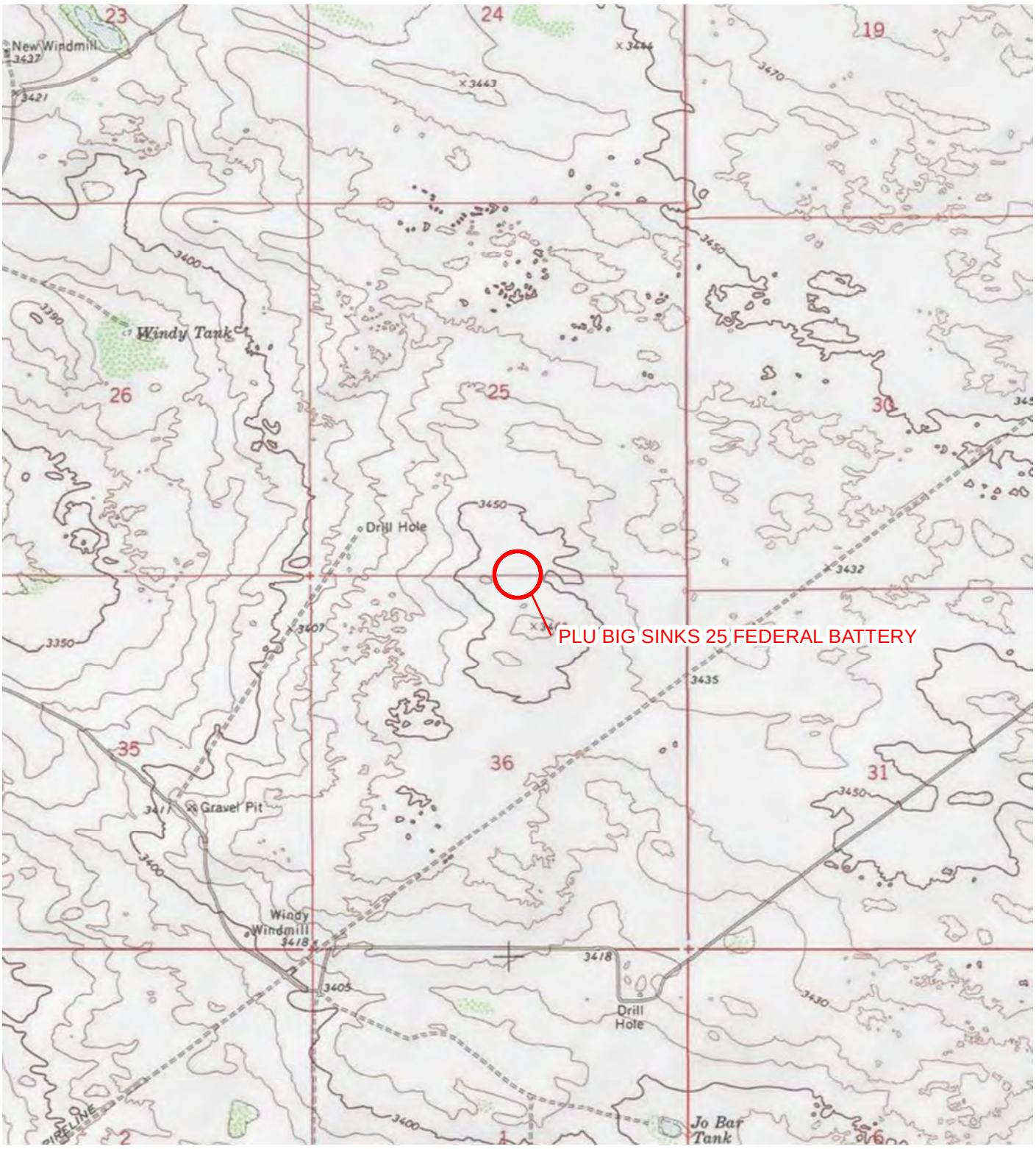

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBERS 2RP-2526, 2RP-4327, 2RP-4398, & 2RP-4779

FIGURE 1
SITE LOCATION MAP
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT O SEC 25 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918093_PLU CVX JV #005H_AKA BS25\012918093_FIG01_SL_2018_ALL_2RP.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
GRO+DRO = 1,000 mg/kg
TPH = 2,500 mg/kg
Cl = 20,000 mg/kg
NMOCD RECLAMATION CLOSURE CRITERIA FOR TOP FOUR FEET OF AREAS TO BE RECLAIMED (NMAC 19.15.29.13.D (1))
Cl = 600 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE STANDARD

SS25@2'
02/11/2019
B: <0.00200
BTEX: <0.00200
GRO+DRO: <15.0
TPH: <15.0
Cl: 17.1

SS25A@4'
02/11/2019
B: <0.00200
BTEX: <0.00200
GRO+DRO: <15.0
TPH: <15.0
Cl: 18.5

SS27@2'
02/11/2019
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 25.7

SS27A@4'
02/11/2019
B: <0.00199
BTEX: <0.00199
GRO+DRO: <15.0
TPH: <15.0
Cl: 23.9

SS7@0.5'
06/08/2018
B: <0.00200
BTEX: <0.00200
GRO+DRO: <14.9
TPH: <14.9
Cl: 2,390

SS9@0.5'
06/08/2018
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 1,580

SS11@0.5'
06/08/2018
B: <0.00199
BTEX: <0.00199
GRO+DRO: 19.0
TPH: 19.0
Cl: 133

SS8@0.5'
06/08/2018
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 321

SS12@0.5'
06/08/2018
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 93.4

SS10@0.5'
06/08/2018
B: <0.00199
BTEX: <0.00199
GRO+DRO: 18.0
TPH: 18.0
Cl: 2,390

SS12A@2'
02/11/2019
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 157

SS14@0.5'
06/08/2018
B: <0.00202
BTEX: <0.00202
GRO+DRO: <15.0
TPH: <15.0
Cl: 3,570

SS13@0.5'
06/08/2018
B: <0.00202
BTEX: <0.00202
GRO+DRO: <15.0
TPH: <15.0
Cl: 4,240

SS10A@2'
02/11/2019
B: <0.00201
BTEX: <0.00201
GRO+DRO: <15.0
TPH: <15.0
Cl: 202

SS12B@4'
02/11/2019
B: <0.0199
BTEX: <0.00199
GRO+DRO: <15.0
TPH: <15.0
Cl: 217

SS24@2'
02/11/2019
B: <0.00200
BTEX: <0.00200
GRO+DRO: 38.2
TPH: 38.2
Cl: 564

SS23@2'
02/11/2019
B: <0.00199
BTEX: <0.00199
GRO+DRO: <15.0
TPH: <15.0
Cl: 265

SS10B@4'
02/11/2019
B: <0.00200
BTEX: <0.00200
GRO+DRO: <14.9
TPH: <14.9
Cl: 143

SS24A@4'
02/11/2019
B: <0.00199
BTEX: <0.00199
GRO+DRO: 80.1
TPH: 80.1
Cl: 1,080

SS23A@4'
02/11/2019
B: <0.00200
BTEX: <0.00200
GRO+DRO: <15.0
TPH: <15.0
Cl: 236

LEGEND

× RELEASE LOCATION 2RP-2526

● PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120
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-2526

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT O SEC 25 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918093_PLU CVX JV #005H_AKA BS25\012918093_FIG02_PRELIMINARY SS_2018_2526.mxd

LEGEND

RELEASE LOCATION 2RP-2526

DELINEATION SOIL SAMPLE

IMAGE COURTESY OF GOOGLE EARTH 2017

0 60 120

Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT O SEC 25 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

NOTE: REMEDIATION PERMIT NUMBER 2RP-2526

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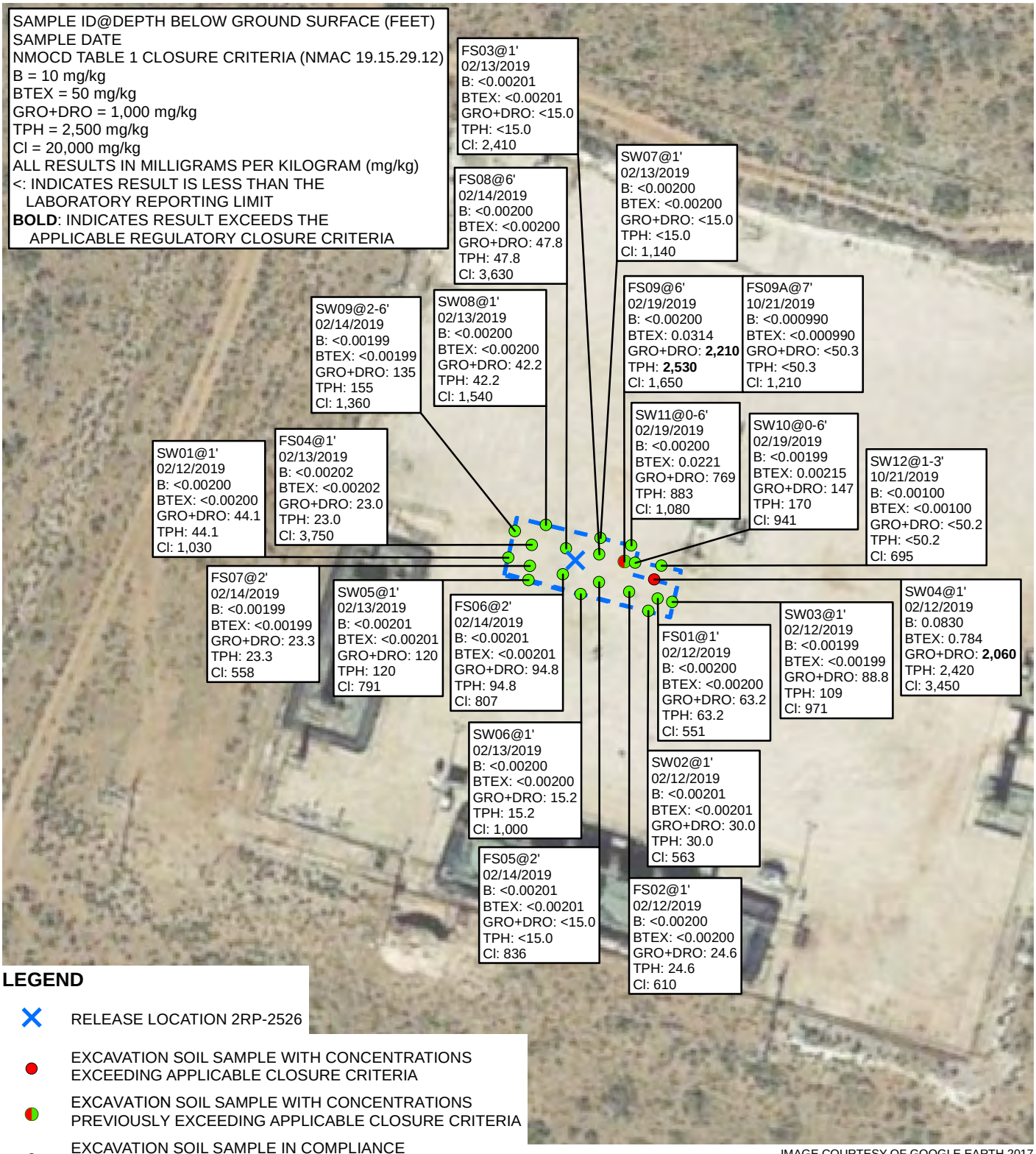

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT O SEC 25 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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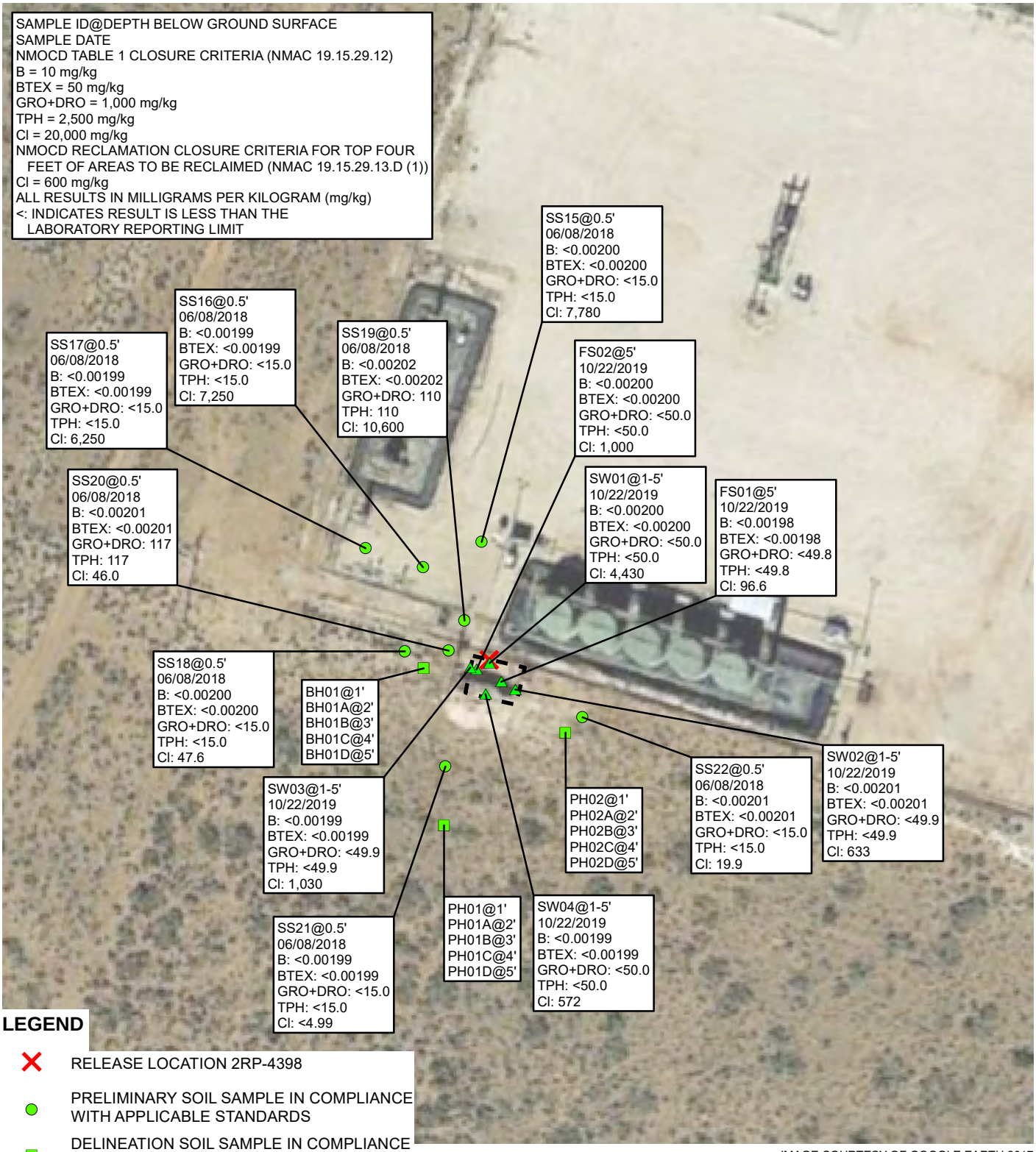

FIGURE 5
SOIL SAMPLE LOCATIONS
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT B SEC 36 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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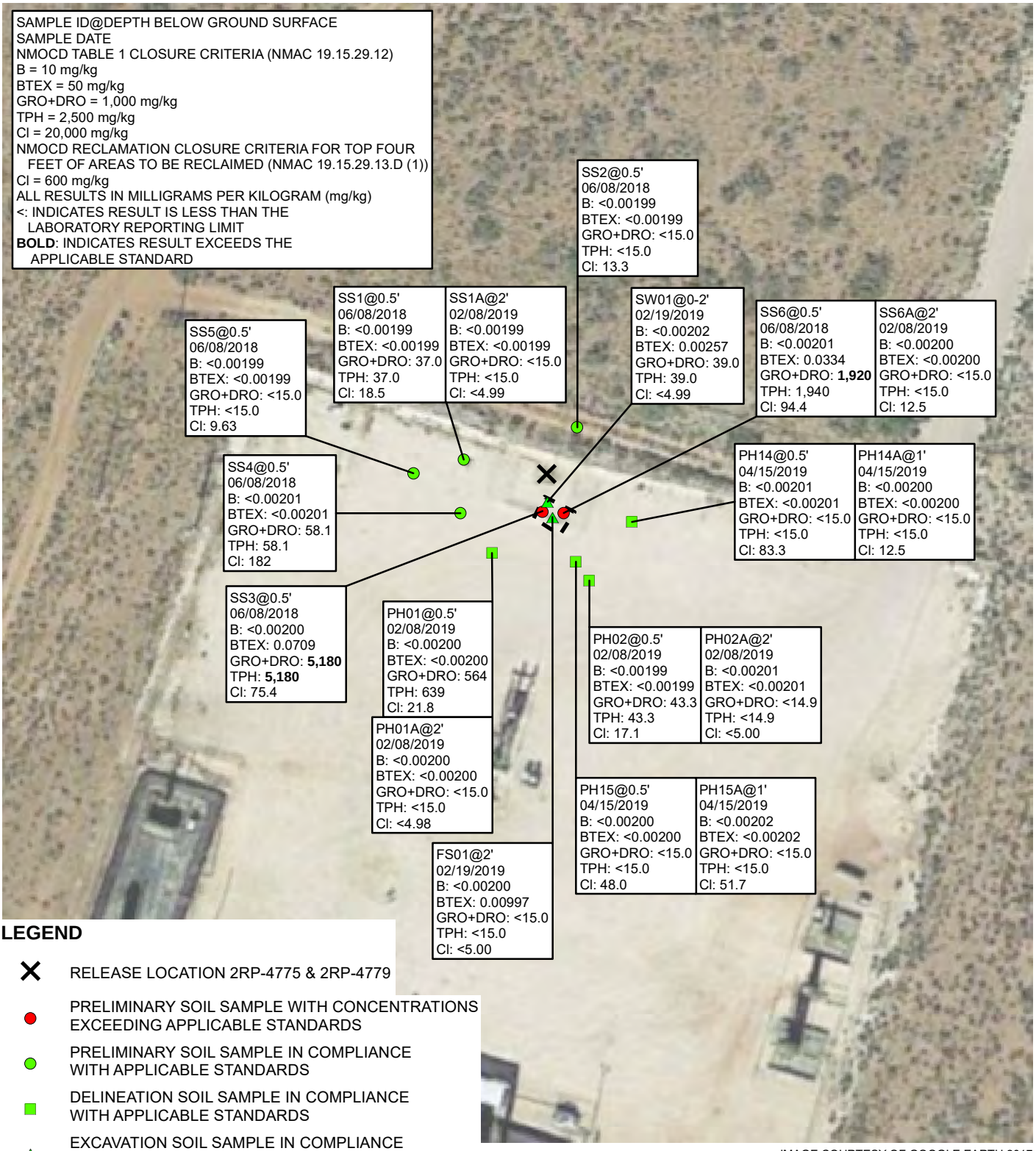

FIGURE 6
SOIL SAMPLE LOCATIONS
PLU BIG SINKS 25 FEDERAL BATTERY
UNIT O SEC 25 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-2526
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
SS7	0.5	2RP-2526	6/8/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	2,390
SS8	0.5	2RP-2526	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	321
SS9	0.5	2RP-2526	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,580
SS10	0.5	2RP-2526	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	18.0	<15.0	18.0	18.0	2,390
SS10A	2	2RP-2526	2/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	202
SS10B	4	2RP-2526	2/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	143
SS11	0.5	2RP-2526	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	19.0	<15.0	19.0	19.0	133
SS12	0.5	2RP-2526	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	93.4
SS12A	2	2RP-2526	2/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	157
SS12B	4	2RP-2526	2/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	217
SS13	0.5	2RP-2526	6/8/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	4,240
SS14	0.5	2RP-2526	6/8/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	3,570
SS23	2	2RP-2526	2/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	265
SS23A	4	2RP-2526	2/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	236
SS24	2	2RP-2526	2/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	38.2	<14.9	38.2	38.2	564
SS24A	4	2RP-2526	2/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	80.1	<15.0	80.1	80.1	1,080
SS25	2	2RP-2526	2/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	17.1
SS25A	4	2RP-2526	2/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	18.5
SS27	2	2RP-2526	2/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	25.7
SS27A	4	2RP-2526	2/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	23.9
PH01	13	2RP-2526	4/2/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH02	16	2RP-2526	4/2/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH03	8	2RP-2526	4/2/2019	<0.00202	<0.00202	<0.00202	<0.00202	`	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH04	12	2RP-2526	4/3/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	<14.9
PH05	3.5	2RP-2526	04/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	188
PH05A	6.5	2RP-2526	04/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	191
PH06	0.5	2RP-2526	04/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1140
PH06A	2.5	2RP-2526	04/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	308
PH06B	6.5	2RP-2526	04/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	62.6
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

TABLE 1
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-2526
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
PH07	3	2RP-2526	04/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	226
PH07A	4.5	2RP-2526	04/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	228
PH08	6	2RP-2526	04/17/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	300
PH08A	11	2RP-2526	04/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	101
PH09	4.5	2RP-2526	4/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH09A	7.5	2RP-2526	4/12/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH10	8.5	2RP-2526	4/12/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH10A	12.5	2RP-2526	4/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
PH11	4.5	2RP-2526	04/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	471
PH11A	11	2RP-2526	04/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	203
PH12	0.5	2RP-2526	04/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	235
PH12A	4.5	2RP-2526	04/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	868
PH13	6.5	2RP-2526	04/15/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	42.0
PH13A	10.5	2RP-2526	04/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	118
PH17	3	2RP-2526	04/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	157
PH17A	6.5	2RP-2526	04/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	111
SW01	1	2RP-2526	2/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	44.1	<15.0	44.1	44.1	1,030
SW02	1	2RP-2526	2/12/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	30.0	<15.0	30.0	30.0	563
SW03	1	2RP-2526	2/12/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	88.8	20.4	109.2	109	971
SW04	1	2RP-2526	2/12/2019	0.0830	0.159	0.0526	0.489	0.784	214	1,850	360	**2,210**	2420	3,450
SW05	1	2RP-2526	2/13/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	120	<15.0	120	120	791
SW06	1	2RP-2526	2/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	15.2	<15.0	15.2	15.2	1,000
SW07	1	2RP-2526	2/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,140
SW08	1	2RP-2526	2/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	42.2	<15.0	42.2	42.2	1,540
SW09	2 - 6	2RP-2526	2/14/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	135	19.8	154.8	155	1,360
SW10	0 - 6	2RP-2526	2/19/2019	<0.00199	0.00215	<0.00199	<0.00199	0.00215	<15.0	147	23.1	170	170	941
SW11	0 - 6	2RP-2526	2/19/2019	<0.00200	<0.00200	<0.00200	0.0221	0.0221	54.1	715	114	829	883	1,080
SW12	1 - 3	2RP-2526	10/21/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<50.2	<50.2	<50.2	<50.2	<50.2	695
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

TABLE 1
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-2526
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
FS01	1	2RP-2526	2/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	63.2	<15.0	63.2	63.2	551
FS02	1	2RP-2526	2/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	24.6	<14.9	24.6	24.6	610
FS03	1	2RP-2526	2/13/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	2,410
FS04	1	2RP-2526	2/13/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	23.0	<15.0	23.0	23.0	3,750
FS05	2	2RP-2526	2/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	836
FS06	2	2RP-2526	2/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	94.8	<15.0	94.8	94.8	807
FS07	2	2RP-2526	2/14/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	23.3	<15.0	23.3	23.3	558
FS08	6	2RP-2526	2/14/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	47.8	<15.0	47.8	47.8	3,630
FS09	6	2RP-2526	2/19/2019	<0.00200	0.00218	0.00269	0.0265	0.0314	156	2,050	324	**2,374**	**2,530**	1,650
FS09A	7	2RP-2526	10/21/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<50.3	<50.3	<50.3	<50.3	<50.3	1,210
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 20

TABLE 2
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-4398
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
SS15	0.5	2RP-4398	6/8/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	7,780
SS16	0.5	2RP-4398	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	7,250
SS17	0.5	2RP-4398	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	6,250
SS18	0.5	2RP-4398	6/8/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	47.6
SS19	0.5	2RP-4398	6/8/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	110	<14.9	110	110	10,600
SS20	0.5	2RP-4398	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	117	<14.9	117	117	46.0
SS21	0.5	2RP-4398	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99
SS22	0.5	2RP-4398	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	19.9
BH01	1	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<5.05
BH01A	2	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
BH01B	3	2RP-4398	10/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	62.3
BH01C	4	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	40.3
BH01D	5	2RP-4398	10/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	18.1
PH01	1	2RP-4398	10/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
PH01A	2	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
PH01B	3	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<5.01
PH01C	4	2RP-4398	10/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	8.30
PH01D	5	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	7.72
PH02	1	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
PH02A	2	2RP-4398	10/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	5.08
PH02B	3	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<5.04
PH02C	4	2RP-4398	10/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	23.4
PH02D	5	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	29.4
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

TABLE 2
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-4398
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
SW01	1 - 5	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	4,430
SW02	1 - 5	2RP-4398	10/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	633
SW03	1 - 5	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,030
SW04	1 - 5	2RP-4398	10/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	572
FS01	5	2RP-4398	10/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	96.6
FS02	5	2RP-4398	10/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,000
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 20

TABLE 3
SOIL ANALYTICAL RESULTS

PLU BIG SINKS 25 FEDERAL BATTERY
REMEDIATION PERMIT NUMBER 2RP-4775 and 2RP-4779
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Report Number	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)
SS1	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	37.0	<15.0	37.0	37.0	18.5
SS1A	2	2RP-4775, 2RP-4779	2/8/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99
SS2	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	13.3
SS3	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00200	0.00306	0.00618	0.0617	0.0709	204	4,980	<15.0	**4,980**	**5,180**	75.4
SS4	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	58.1	<14.9	58.1	58.1	182
SS5	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	9.63
SS6	0.5	2RP-4775, 2RP-4779	6/8/2018	<0.00201	<0.00201	0.00287	0.0305	0.0334	50.4	1,870	21.2	**1,891**	1,940	94.4
SS6A	2	2RP-4775, 2RP-4779	2/8/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	12.5
PH01	0.5	2RP-4775, 2RP-4779	2/8/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	564	75.4	564	639	21.8
PH01A	2	2RP-4775,2RP-4779	2/8/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98
PH02	0.5	2RP-4775, 2RP-4779	2/8/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	43.3	<15.0	43.3	43.3	17.1
PH02A	2	2RP-4775, 2RP-4779	2/8/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	<5.00
PH14	0.5	2RP-4775, 2RP-4779	04/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	83.3
PH14A	1	2RP-4775, 2RP-4779	04/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	12.5
PH15	0.5	2RP-4775, 2RP-4779	04/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	48.0
PH15A	1	2RP-4775, 2RP-4779	04/15/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	51.7
SW01	0 - 2	2RP-4775, 2RP-4779	2/19/2019	<0.00202	0.00257	<0.00202	<0.00202	0.00257	<15.0	39.0	<15.0	39.0	39.0	<4.99
FS01	2	2RP-4775, 2RP-4779	2/19/2019	<0.00200	<0.00200	0.00261	0.00736	0.00997	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

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

Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2(

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-2526, 2RP-4398, 2RP-4775, 2RP-4779)

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

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

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 08 2014
RECEIVED

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

nAB1428137122 — 260737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU-CVX-JV #005H (AKA Big Sinks 25 Federal #1H)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39018

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	25	24S	30E	100	South	2240	East	Eddy

Latitude N 32.18193 **Longitude** W 103.83318

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 10 bbls of crude oil and 109 bbls produced water.	Volume Recovered: 5 bbls crude oil and 75 bbls produced water.
Source of Release: 2 7/8" flow line	Date and Hour of Occurrence: 10/1/14 time unknown	Date and Hour of Discovery: 10/1/14 at approximately 10:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD emergency #104	
By Whom? Bradley Blevins	Date and Hour: 10/1/14 at approximately 4:30 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The buried flow line developed a leak due to external corrosion. A repair clamp was placed on the leak area. Crews replaced the flow line across the well pad with externally coated pipe on 10/2/14.

Describe Area Affected and Cleanup Action Taken.*
The release impacted approximately 9,656 sq.ft. of caliche well pad area. All of the free standing fluid was removed with a vacuum truck. The stained area on the pad was left as is pending remediation activities.
The spill area will be cleaned up in accordance to the NMOCD and BLM remediation guidelines.

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: Tony Savoie	OIL CONSERVATION DIVISION Signed By Mike Bratcher Approved by Environmental Specialist:
Printed Name: Tony Savoie	
Title: Waste Management and Remediation Specialist	Approval Date: 10/8/14 Expiration Date: N/A
E-mail Address: tasavoie@basspet.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 11/8/14 Attached ☐
Date: 10/7/14 Phone: 432-556-8730	

* Attach Additional Sheets If Necessary

2RP-2526

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-2526
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-2526
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.18193 Longitude W 103.83318
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU-CVX-JV #005H (AKA Big Sinks 25 Federal #1H)	Site Type: Production Well Facility
Date Release Discovered: 10/1/2014	API# *(if applicable):* 30-015-39018

Unit Letter	Section	Township	Range	County
O	25	24S	30E	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):10	Volume Recovered (bbls):5
☒ Produced Water	Volume Released (bbls): 109	Volume Recovered (bbls): 75
	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 buried flow line developed a leak due to external corrosion.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2526
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? Volume released 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 Bradley Blevins to NMOCD on 10/1/2014 at 4:30 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: 3/20/2020

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-2526
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2526
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: 3/20/2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1428137122
District RP	2RP-2526
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: 3/20/2020

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: 09/15/2021

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

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 18 2017
RECEIVED

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

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

nAB1726334570

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy / BOPCO 260737	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU Big Sinks 25 Federal Battery (API for well PLU CVX JV BS #005H)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39018

this pad is split on surface ownership

well is on federal surface federal mineral 25-24S-30E unit O

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	36	24S	30E	50	North	2340	East	Eddy

state minerals
state land - release on sto surface mostly

Latitude 32.181458° Longitude -103.833299°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 11.12 BPW	Volume Recovered: 5 BPW
Source of Release: SWD discharge steel riser	Date and Hour of Occurrence: 9/1/2017 time unknown	Date and Hour of Discovery: 9/1/2017 8 am
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

Late - Past due Initial C-141

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

Describe Cause of Problem and Remedial Action Taken.*
A hole developed below the ground surface in the riser of the SWD discharge line due to internal corrosion. The line was isolated while the riser was exposed for repairs.

Describe Area Affected and Cleanup Action Taken.*
The leak affected approximately 6,054 square feet of caliche pad and about 64 square feet of pasture to the south of the tank battery impermeable containment. Free standing fluids were recovered from the pasture and southwest corner of the facility pad.

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: Amy C Ruth	OIL CONSERVATION DIVISION
Printed Name: Amy C. Ruth	Approved by Environmental Specialist: Crystal Weaver
Title: Environmental Coordinator	Approval Date: 9/19/17 Expiration Date: N/A
E-mail Address: Amy_Ruth@xtoenergy.com	Conditions of Approval: see attached Attached ☒ #RP-4398
Date: 9/18/2017 Phone: 432-661-0571	

* Attach Additional Sheets If Necessary

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

District I
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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-4398
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-4398
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.181458 Longitude W 103.833299
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU Big Sinks 25 Federal Battery	Site Type: Production Well Facility
Date Release Discovered: 9/1/2017	API# *(if applicable):* 30-015-39018

Unit Letter	Section	Township	Range	County
O	25	24S	30E	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):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 11.12	Volume Recovered (bbls): 5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A hole developed in the riser of the SWD discharge line due to internal corrosion.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4398
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 less than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

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: 3-20-2020

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-4398
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4398
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: 3-20-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1726334578
District RP	2RP-4398
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: 3-20-2020

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: 09/15/2021

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

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

MAY 25 2018

Oil Conservation Division DISTRICT II-ARTESIA O.C.D.
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1815749016 pRCS2100737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy	Contact: Kyle Littrell
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: PLU Big Sinks 25 Federal Battery (API – Poker Lake Unit CVX JV BS #005H)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No: 30-015-39018

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	25	24S	30E	32	South	2400	East	Eddy

Latitude 32.181688 **Longitude** -103.832976 NAD83

NATURE OF RELEASE

Type of Release Oil and produced water	Volume of Release <1/4 BBL oil, 2 BBL produced water	Volume Recovered 0 bbl
Source of Release Flare	Date and Hour of Occurrence 5/13/2018, AM	Date and Hour of Discovery 5/13/18, 12:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver (NMOCD), Jim Amos and Shelly Tucker (BLM), Mark Naranjo and Ryan Mann, (SLO)	
By Whom? Kyle Littrell	Date and Hour: 5/14/2018, 7:09 AM	
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.*
Heater treater and flare scrubber loaded up and caused fluid to exit the flare stack, resulting in a small fire. The fire extinguished itself. Lease operator discovered that valves had been closed on water and oil tanks. Valves were corrected and facility was shut in until repairs could be made.

Describe Area Affected and Cleanup Action Taken.*
The fire affected a small area of the pad near the flare stack and sixty feet north into the pasture. An environmental contractor has been retained to assist with remediation efforts.

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:

Printed Name: Kyle Littrell

Title: Environmental Coordinator

E-mail Address: Kyle_Littrell@xtoenergy.com

Date: 5/25/2018 Phone: 432-221-7331

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 6/5/18 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☒ JRP-4775

* Attach Additional Sheets If Necessary

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-4775
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-4775
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.181688 Longitude W 103.832976
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU Big Sinks 25 Federal Battery	Site Type: Production Well Facility
Date Release Discovered: 5/13/2018	API# *(if applicable):* 30-015-39018

Unit Letter	Section	Township	Range	County
O	25	24S	30E	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): 1/4	Volume Recovered (bbls): 0
☒ Produced Water	Volume Released (bbls): 2	Volume Recovered (bbls): 0
	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 heater-treater and flare scrubber loaded up and caused fluid to exit the flare stack, resulting in a small fire.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4775
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 less than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

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: 3-20-2020

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

OCD Only

Received by: Date:

Incident ID	
District RP	2RP-4775
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4775
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: 3-20-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1815767186
District RP	2RP-4775
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: 3-20-2020

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: 09/15/2021

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

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

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

MAY 31 2018
DISTRICT II-ARTESIA O.C.D.

Form C-141
Revised April 3, 2017

Submit to Appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1815757186 BORO 2100137

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy	Contact: Kyle Littrell
Address: 3104 E. Greene St., Carlsbad, N.M. 88220	Telephone No: 432-221-7331
Facility Name: PLU Big Sinks 25 Federal Battery (API – Poker Lake Unit CVX JV BS #005H)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No: 30-015-39018

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	25	24S	30E	32	South	2400	East	Eddy

Latitude 32.181688 **Longitude** -103.832976 NAD83

NATURE OF RELEASE

Type of Release Oil and produced water	Volume of Release < ½ bbl	Volume Recovered 0 bbl
Source of Release Flare	Date and Hour of Occurrence 5/18/2018, AM	Date and Hour of Discovery 5/18/18, 7:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Crystal Weaver (NMOCD), Jim Amos and Shelly Tucker (BLM), Mark Naranjo and Ryan Mann (SLO)	
By Whom? Kyle Littrell	Date and Hour: 5/18/2018, 8:55 AM	
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.*
Flare line loaded up and caused fluid to exit the flare stack, resulting in a small fire. The fire extinguished itself. The location was shut in until repairs could be made.

Describe Area Affected and Cleanup Action Taken.*
The fire affected a small section of pad due west of the flare. There was no impact to the pasture. An environmental contractor has been retained to assist with remediation efforts.

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	Signed By: Approved by Environmental Specialist:
Title: Environmental Coordinator	Approval Date: 6/5/18 Expiration Date: N/A
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: See attached Attached ☒ 2RP-4779
Date: 5/30/2018 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

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-4779
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-4779
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.181688 Longitude W 103.832976
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU Big Sinks 25 Federal Battery	Site Type: Production Well Facility
Date Release Discovered: 5/18/2018	API# *(if applicable):* 30-015-39018

Unit Letter	Section	Township	Range	County
O	25	24S	30E	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): < ¼ bbl oil and produced water combined	Volume Recovered (bbls): 0
☐ Produced Water	Volume Released (bbls):	Volume Recovered (bbls): 0
	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 flare line loaded up and caused fluid to exit the flare stack, resulting in a small fire.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4779
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 less than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☒ The source of the release has been stopped.

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

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

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

If all the actions described above have 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: 3-20-2020

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-4779
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4779
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: 3-20-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1815767186
District RP	2RP-4779
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: 3-20-2020

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: 09/15/2021

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

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
SS10	2/11/19
Project Name:	**RP Number:**
PLU CVX JV 5H	2RP-2526

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
MAW	Backhoe

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.18193, -103.83318	PID	NA	4' bgs

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, BUFF, DRY, LOOSE, HARD
					1			
	<28	0.3		SS10A	2			SANDY SILT, RED BRN, DRY, LOOSE, 30% F SAND. NO ODOR NO STAIN
					3			
	<28	0.1		SS10B	4			TD @ 4' bgs
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
SS12	2/11/19
Project Name: PLU CVX JV 5H	RP Number: 2RP-2526

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MAW	Method: Backhoe
Lat/Long: 32.18193, -103.83318	Field Screening: PID
Hole Diameter: NA	Total Depth: 4' bgs

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, DRY, LOOSE, HARD, BUFF
					1			
	38	1.0		SS12A	2			SANDY SILT, RED BRN, DRY, LOOSE 30% + SAND, NO ODOR, NO STAIN
					3			
	428	1.1		SS12B	4			CALICHE, SAND TD @ 4' bgs
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
SS23	2/11/19
Project Name: PLU CVX JV 5H	**RP Number:** 2RP-2526

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:	Field Screening:	Logged By: MAW	Method: Backhoe
32.18193, -103.83318	PID	Hole Diameter: NA	Total Depth: 4' bgs

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, HARD, DRY, BUFF
					1			
	28	0.5		SS23	2			SANDY SILT, RED-BRN, LOOSE, DRY, 30% F SAND, NO ODOR NO STAIN
					3			
	35	0.1		SS23A	4			TD 4' bgs
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier: SS24	Date: 2/11/19
Project Name: PLU CVX JV 5H	RP Number: 2RP-2526

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MAW	Method: Backhoe
Lat/Long: 32.18193, -103.83318	Field Screening: PID
Hole Diameter: NA	Total Depth: 4' bgs

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, BOFF, DRY, LOOSE, HARD
					1			- SANDY SILT, RED BRN, DRY, LOOSE, 70% F SAND, NO ODOR
	82	0.3			2			- NO STAIN
					3			- CALICHE, SAME
	133	1.7			4			- TD @ 4' bgs
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation	Identifier: SS25'	Date: 2/4/19
	Project Name: PLU CVX JV 5H	RP Number: 2RP-2526
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: MAW	Method: Backhoe
Lat/Long: 32.18193, -103.83318	Field Screening: PID	Hole Diameter: NA	Total Depth: 4' bgs
Comments:		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, BUFF, DRY, LOOSE, HARD
					1			SILTY SAND, RED BRN, DRY, LOOSE, 30% F SAND, NO ODOR, NO STAIN, SOME CLAY, ROOTS
	<28	0.9		SS25'	2			
					3			
	<28	0.8		SS26'	4			CALICHE, SAME
					5			TD @ 4' bgs
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
SS27	2/11/19
Project Name:	**RP Number:**
PLU CVX JV 5H	2RP-2526

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: MAW	Method: Backhoe
Lat/Long: 32.18193, -103.83318	Field Screening: PID
Hole Diameter: NA	Total Depth: 4' bgs

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			CALICHE, BUFF, DRY, HARD, LOOSE
					1			SANDY SILT, RED BRN, DRY, LOOSE, 30% F SAND, SOME CLAY, NO ODOR, NO STAIN
	<28	0.7			2			
					3			
	<28	0.4			4			TD @ 4' BGS
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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Identifier:	Date:
PH01	04/02/2019
Project Name: PLU Big Sinks 25 Battery	RP Number: 2RP 2526
Logged By: L. Lambach	Method: backhoe
Lat/Long: 32°10'54.6285, -103°49'58.9003"	Field Screening: Chlorides, PID
Hole Diameter: 2.5'	Total Depth: 13'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: vertical delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			Caliche - pad
					1			Clayey sand, compressible, damp N-odor
					2			Excavated out
					3			
	(1116) 2.2				4			4' bgs (composite FS @ excavation depth)
M			N		5			clayey sand, compressible, damp, low plasticity N odor
M	3.6 (2488)	33.8	Y		5.5' 6"	6'	caliche	caliche, damp odor, brown/tan, looks stained flaky
			N		7		caliche	tan, soft, sand consistency, 1" rocks N odor, not dense
D	3.2 (2032)	24.3	N		8'			
			N		9			
D	(<1116) 1.4	10.6	N		10			N odor, tan, light compared to 7-9' bgs samples above 1/16"-1/2" rocks, ~~pebbles~~
					11			
Dry	(<1116) 1.2	15.5			12'			

1.4 (<1116) 13.4 PH01 13'

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Carlsbad, New Mexico 88220
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Identifier: PH-2	Date: 04/02/2019
Project Name: PLU BS 25 Battery	RP Number: 2RP 2526
Logged By: L. Lamb	Method: trackhoe
Hole Diameter: 2.5'	Total Depth:

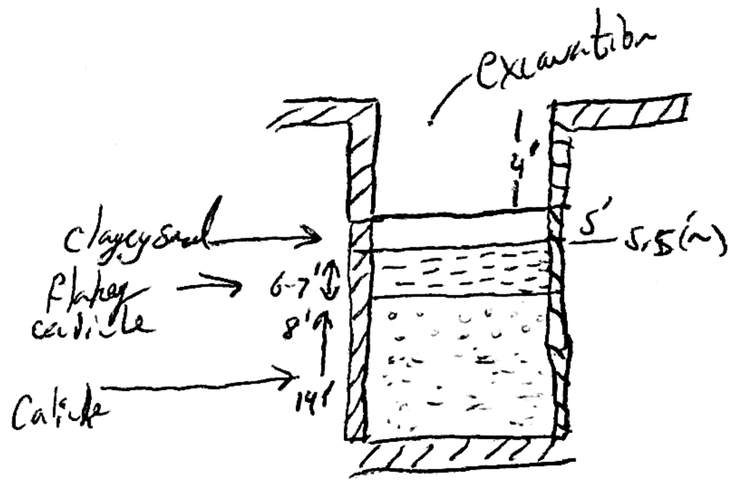
LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: 32° 10' 54.4795", -103° 49' 58.869"

Field Screening: PID chlorides

Comments: Vertical delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
					2			
					3			
					4			excavation extent
M					5			clayey sand, N odor, brown, damp, low plasticity
dry	1.6 (<1116)	17.5			(6')		caliche	flaky, tan w/ brown
					7			
dry	2.0 (<1116)	11.5			(8')		caliche	tan soft, N odor, 50% fines, 1/16" rocks
					9			
Dry	3.0 (1544)	13.0			(10')			
					11			
dry	(1116) 2.2	11.7			(12)			cool to touch
dry	1.2 (<1116)	9.2			(14')			grainy/coarse, non plastic



16' PID chlorides 24.2 1 ft PH-2

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Identifier: PH-3	Date: 04/02/2019
Project Name: PLU BS 25 Battery	RP Number: 2RP 2526
Logged By: L. Lambuth	Method: Trackhoe
Lat/Long: 32° 10' 54.5471", -103° 49' 59.333"	Field Screening: Chloride, PID
Hole Diameter: 2.5'	Total Depth: 8'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			excavation extent
M					4			clayey sand, brown, N odor
dry	2.8 (1572)	23.2			6			tan, ½" rocks, fine, 50/50, gravel, non plastic low density no odor
dry	ND	9.3		PH03	8			tan, lighter than 6-7' previous, no odor
								deepest depth

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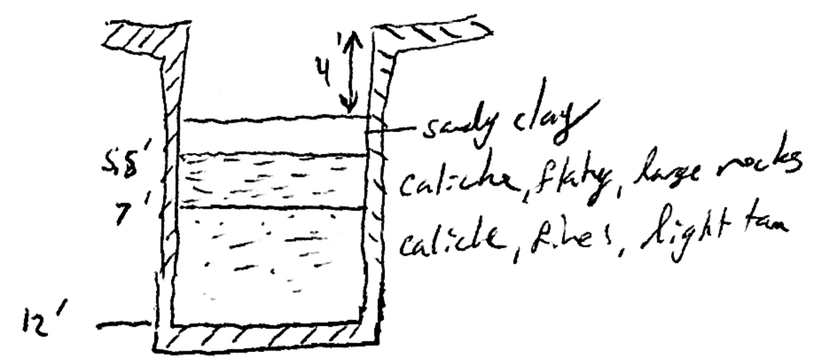
Identifier: PH04	Date: 04/03/2019
Project Name: PLUBS 25 Pathway	RP Number: 2RP 2526
Logged By: L. Lambertch	Method: Trackhoe
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: 2.5'	Total Depth: 12'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: Vertical delineation

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
					1			
					2			
					3			
					4			Excavation depth
					5		SC	clayey sand 5.5' caliche
Dry	3.8 (2544)	267.4			(6)		caliche	hard dig - ~~smells~~ odor tan, course, 1/8" rocks 10% fines
					7			
dry	2.6 (1412)	6.6			8			50/50 fines No odor
					9			
dry	1.2 3.8(2) (536)	4.1			(10')			No odor, 1/16" - 1/8" rocks
					11			
dry	(260) 2.6(2)	2.8		PH04	(12')			



dry ~~(1412)~~ ~~ft~~ Extent

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BH or PH Name: PH05	Date: 4/17/19
Site Name: PLU CVX JV BS #005	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 6.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit; * Cl^- values reported include 40%-60% correction factor

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
Dry	172.8	Ø	No	—	0.5'	0		pad surface caliche, well compact, no staining
D	BDL	Ø	N	—	1'	1	caliche	grey to light grey to white colored, well-cemented caliche
D	BDL	Ø	N	—	2'	2		
D	BDL	Ø	N	PH05	3.5'	3		
D	262.4	Ø	N	—	4.5'	4		
D	172.8	Ø	N	PH05A	6.5'	5		
						6		TOT DEPTH
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH06	Date: 4/17/19
Site Name: PLU CVX JV BS #005	
RP or Incident Number: 2RP-2526 & 2RP-4327	
LTE Job Number:	
Logged By: AnnaByers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit ; Cl^- values reported include 40-60% correction factor

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		pad surface caliche
Dry	1952	Ø	No	PH06	0.5'			
D	556.8	Ø	N	—	1'	1	caliche	white to grey colored, moderated ~~Loose~~ cemented caliche
						2		
D	371.2	Ø	N	PH06A	2.5'			
D	428.8	Ø	N	—	3'	3		
						4		
					4.5'			" well-cemented
D	172.8	Ø	N	—		5		
						6		
D	BDL	Ø	N	PH06B	6.5'			
						7		TOT DEPTH
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH07	Date: 4/17/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 4.5'

Comments: BDL - Below Detection Limit ; * Cl- values reported include 40%-60% correction factor

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	BDL	Ø	No	—	0.5'	0	caliche	pad surface caliche, well-compact white to grey colored, well-cemented caliche
D	BDL	Ø	N	—	1	1		
D	72.8	Ø	N	—	2	2		
D	262.4	Ø	N	PH07	3	3		
D	262.4	Ø	N	PH07A	4.5'	4		
						5		TOT DEPTH
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH08	Date: 4/17/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 11'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit; *Cl- values include 40-60% correction factor; **TPH Ø indicates/represents

Moisture Content	* Chloride (ppm)	** Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		pad surface caliche, well-compacted
Dry	556.8	Ø	No	—	0.5'			
D	492.8	Ø	N	—	1'	1	caliche	white to grey colored, moderate to well-cemented caliche
D	492.8	Ø	N	—	2'	2		
D	1382.4	Ø	N	—	3'	3		
D	2086.4	Ø	N	—	4'	4		
						5		
D	2227.2	Ø	N	PH08	6'	6		
						7		
D	1286.4	Ø	N	—	8'	8		
						9		
D	371.2	Ø	N	—	10'	10		
D	BDL	Ø	N	PH08A	11'	11		
						12		TOT DEPTH

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BH or PH Name: PH09	Date: 4/12/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: AnnaByers	Method: Track Hoe
Hole Diameter: N/A	Total Depth: 7.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Collector | Field Screening: Chloride, PID

Comments: within excavation; BDL - Below detection limit; D-Dry; N-No

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		EXCAVATED
						1		
						2		
						3		
						4		
D	499.2	<15	N	PH09	4.5	5		caliche lt grey, well compacted/cemented caliche
D	BDL	<15	N	—	5.5	6		
D	BDL	<15	N	—	6.5	7		
D	198.4	<15	N	PH09A	7.5	8		TOT DEPTH
						9		
						10		
						11		
						12		

* Cl- concentration reported includes 40% correction factor -60%

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BH or PH Name: PH10	Date: 4/12/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 12.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: within excavation; * Cl^- ppm value reported includes 40%-60% correction factor

Moisture Content	Chloride* (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0.5		
						1.5		
								EXCAVATED
						3.5		
Dry	1363.2	<15	No		4.5'	4.5	caliche	well cemented, light grey to white colored caliche
D	1004.8	<15	N		5.5'	5.5		
D	928	<15	N		6.5'	6.5		
D	723.2	<15	N		7.5'	7.5		
D	1824	<15	N	PH10	PH10	8.5		
D	1260.8	<15	N		9.5'	9.5		
D	—	—	N		10.5'	10.5		
D	556.8	<15	N		11.5'	11.5		
D	236.8	<15	N	PH10A	PH10A	12.5		

TOT DEPTH

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BH or PH Name: PH11	Date: 4/15/19
Site Name: PHU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 11'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: within excavation; * Cl^- ppm values reported include 40%-60% correction factor

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		EXCAVATED
						1		
						2		
						3		
						4		
Dry	6483.2	4.6	No	PH11	4.5'	5	caliche	light grey to white colored, well cemented caliche
D	4633.2	4.1	N	—	5.5'	6		
D	5056	5.0	N	—	7'	7		
D	3033.6	3.7	N	—	8'	8		
D	665.6	3.6	N	—	9'	9		
D	403.2	3.8	N	—	10'	10		
D	454.4	3.6	N	PH11A	11'	11		TOT DEPTH
						12		

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BH or PH Name: PH12	Date: 4/15/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: D - Dry ; M - Moist ; BDL - Below Detection Limit

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	275.2	5.2	No	PH12	0.5'	0	SP	dry, brown poorly-sorted sand (m.), no plasticity, no odor
M	198.4	5.0	N		1.5'	1	SP-SM	moist, brown poorly-sorted sand (m.) with silt, no plasticity & no odor
M	198.4	6.1	N		2.5'	2		
M	198.4	4.8	N		3.5'	3		
M	(BDL) <198.4	3.9	N	PH12A	4.5'	4		
						5		TOT DEPTH
						6		
						7		
						8		
						9		
						10		
						11		
						12		

* Cl- ppm values reported include 40% correction factor -60%

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BH or PH Name: PH13 | Date: 4/15/19
Site Name: PLU CVX JV BS#0054
RP or Incident Number: 2RP-2524
LTE Job Number:
Logged By: Anna Byers | Method: Track Hoe
Hole Diameter: N/A | Total Depth: 10.5'
Lat/Long: Collector | Field Screening: Chloride, PID

LITHOLOGIC / SOIL SAMPLING LOG

Comments: within excavation; * Cl- ppm reported values include 40%-60% correction factor

Moisture Content	Chloride * (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						1		
						2		EXCAVATED
						3		
						4		
D	1171.2	5.3	No	—	4.5'	5	caliche	white to light grey colored, well cemented caliche
D	1593.6	6.7	N	—	5.5'	6		
D	1952	5.5	N	PH13	6.5'	7		
D	BDL	4.3	N	—	7.5'	8		
D	620.8	5.8	N	—	8.5'	9		
D	556.8	6.1	N	—	9.5'	10		
D	33.6	5.9	N	PH13A	10.5'	11		TOT DEPTH
						12		AB

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BH or PH Name: PH13	Date: 4/15/19
Site Name: PLU CVX JV BS#005H	
RP or Incident Number: 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 10.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: within excavation; * Cl- ppm reported values include 40% correction factor

Moisture Content	Chloride* (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		EXCAVATED
						1		
						2		
						3		
						4		
D/Y	1171.2	5.3	No	—	4.5'	5	caliche	white to light grey colored, well cemented caliche
D	1593.6	6.7	N	—	5.5'	6		
D	1952	5.5	N	PH13	6.5'	7		
D	BDL	4.3	N	—	7.5'	8		
D	620.8	5.8	N	—	8.5'	9		
D	556.8	6.1	N	—	9.5'	10		
D	313.6	5.9	N	PH13A	10.5'	11		TOT DEPTH
						12		AB

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BH or PH Name: PH14	Date: 4/15/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-4775 + 2RP-4779 + 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 1.0'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit ; *Cl⁻ values reported include 40%-60% correction factor

Moisture Content	Chloride (ppm) *	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
Dry	172.6	6.8	No	PH14	0.5'	0	caliche	pad surface caliche, well compact
Dry	BDL	7.8	No	PH14A	1.0'	1	↓	↓
						2		TOT DEPTH
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH15	Date: 4/15/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-4775 & 2RP-4779	
LTE Job Number: & 2RP-2526	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 1.0'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit ; * Cl⁻ values reported include 40% -60% correction factor

Moisture Content	Chloride* (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
Dry	BDL	3.2	No	PH15	0.5'	0	caliche ↓	pad surface caliche, well-compacted ↓
Dry	172.6	5.6	No	PH15A	1.0'	1		
						2		TOT DEPTH
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH16	Date: 4/17/19
Site Name: PLU CVX JV BS #005H	
RP or Incident Number: 2RP-2526/2RP-4327/2RP-4398	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: * Cl^- ppm reported value includes 40 %-60% correction factor

Moisture Content	Chloride (ppm) *	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D	428.8	Ø	No	PH16	0.5'	0	caliche	Pad surface caliche (0-0.5') light grey to white well cemented caliche
D	428.8	Ø	N	—	1'	1		
D	556.8	Ø	N	PH16A	2'	2		
						3		TOT DEPTH
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

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BH or PH Name: PH17	Date: 4/17/19
Site Name: PLU CVX JV BS #005 H	
RP or Incident Number: 2RP-4327 & 2RP-2526	
LTE Job Number:	
Logged By: Anna Byers	Method: Track Hoe
Lat/Long: Collector	Field Screening: Chloride, PID
Hole Diameter: N/A	Total Depth: 6.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: BDL - Below Detection Limit; *Cl- values reported include 40%-60% correction factor

Moisture Content	Chloride* (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
Dry	BDL	Ø	No	—	0.5'	0		pad surface caliche, well-compacted
D	BDL	Ø	N	—	1'	1	caliche	light grey to white, well-cemented caliche
D	BDL	Ø	N	—	2'	2		
D	211.2	Ø	N	PH17	3'	3		
						4		
D	428.8	Ø	N	—	4.5'	5		
						6		
D	BDL	Ø	N	PH17A	6.5'	7		TOT DEPTH
						8		
						9		
						10		
						11		
						12		

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Identifier:	Date:
BH01	10.22.19
Project Name: PLU Big Sinks 25 Federal Battery	RP Number: nRP-4398
Logged By: SL	Method: Hand Auger
Hole Diameter: 2"	Total Depth: 5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID Chloride

Comments: TD @ 5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1620 M	<1	0.6	N	BH01	0 1	1	SP-SM	1-3 sand, Brown, no odor, no staining m-f, poorly graded, trace silt
1625 M	<1	1.0	N	BH01A	2	2		
1630 D	<1	0.9	N	BH01B	3	3		
1635 D	<1	0.7	N	BH01C	4	4	CL	3-5 Clayey sand, red, Brown, no odor, no stain, low cohesiveness, low plasticity, m-f, poorly graded
1640 D	<1	0.3	N	BH01D	5	5		-5- caliche gravel some
					6 7 8 9 10 11 12			TD @ 5

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Identifier: pH07	Date: 10.22.19
Project Name: PLU Big Sinks 25 federal Battery	RP Number: 2RP-4398
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: SL / Method: Trunk hoe
Lat/Long:	Field Screening: PID Chloride / Hole Diameter: / Total Depth: 5'

Comments: TD @ 5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
		~~2.7~~			0			
1335 M	<1 / 2179	2.7	N	pH07	1	1	SP-SM	1- Sand, Brown, no odor, no stain, poorly graded, m-f, trace silt
1340 D	<1	3.2	N	pH07A	2	2		
1345 D	<1	2.7	N	pH07B	3	3		
1350 D	<1	2.4	N	pH07C	4	4		-4- increase caliche, trace
1355 D	<1	1.2	N	pH07D	5	5		
					6			TD @ 5'
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.
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Identifier: PH02	Date: 10.22.19
Project Name: PLU Big Sinks 25 Federal Battery	RP Number: 2RP-4398
Logged By: SL	Method: Truck Boe
Lat/Long:	Field Screening: PID Chloride
Hole Diameter:	Total Depth: 5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 5'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	<1				0			1-3
1410 M	2179	1.7	N	PH02	1	1		Sand, Brown, no odor, no stain, m-f, poorly graded trace silt
1415 M	<1	2.8	N	PH02A	2	2	Sp-Sm	2- red Brown sand
1420 D	<1	2.1	N	PH02B	3	3	SL	3- Layer sand, Red, Brown, no odor, no stain m-f, poorly graded, low plasticity (low cohesiveness)
1425 D	<1	2.9	N	PH02C	4	4		-5- trace caliche gravel
1430 D	<1	1.2	N	PH02D	5	5		
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of release area (2RP-2526), facing southeast.

Photograph 2: View of excavation (2RP-2526), facing west.

Photograph 3: View of excavation (2RP-2526), facing west.

Photograph 4: View of excavation (2RP-2526), facing northeast.

PLU Big Sinks 25 Federal Battery
Eddy County, New Mexico
Photographs Taken: February 2019 – October 2019

PHOTOGRAPHIC LOG

Photograph 5: View of release area (2RP-4775 and 2RP-4779), facing north.

Photograph 6: View of release area and excavation (2RP-4775 and 2RP-4779), facing north.

Photograph 7: View of release area and excavation (2RP-4775 and 2RP-4779), facing west.

Photograph 8: View of release area and excavation (2RP-4775 and 2RP-4779), facing west.

PHOTOGRAPHIC LOG

Photograph 9: View of open excavation (2RP-4398), facing east.

Photograph 10: View of open excavation (2RP-4398), facing north.

Photograph 11: View of open excavation (2RP-4398), facing west.

Photograph 12: View of open excavation (2RP-4398), facing northwest.

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 588895

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Big Sinks 25 Federal Battery

012918093

20-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)

20-JUN-18

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

Reference: XENCO Report No(s): **588895**
PLU Big Sinks 25 Federal Battery
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) 588895. 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. 588895 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.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	06-08-18 12:30	6 In	588895-001
SS2	S	06-08-18 12:35	6 In	588895-002
SS3	S	06-08-18 12:40	6 In	588895-003
SS4	S	06-08-18 12:45	6 In	588895-004
SS5	S	06-08-18 12:50	6 In	588895-005
SS6	S	06-08-18 12:55	6 In	588895-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 25 Federal Battery

Project ID: *012918093*
Work Order Number(s): *588895*

Report Date: *20-JUN-18*
Date Received: *06/12/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3053754 BTEX by EPA 8021B

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

Certificate of Analysis Summary 588895

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 012918093
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Tue Jun-12-18 10:45 am
Report Date: 20-JUN-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	588895-001		588895-002		588895-003		588895-004		588895-005		588895-006	
	Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
	Depth:	6- In		6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-08-18 12:30		Jun-08-18 12:35		Jun-08-18 12:40		Jun-08-18 12:45		Jun-08-18 12:50		Jun-08-18 12:55	
BTEX by EPA 8021B	***Extracted:***	Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00	
	Analyzed:	Jun-18-18 10:02		Jun-18-18 11:51		Jun-18-18 12:09		Jun-18-18 12:28		Jun-18-18 12:46		Jun-18-18 14:00	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00199	0.00199	0.00306	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	0.00618	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.00287	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	0.0387	0.00401	<0.00402	0.00402	<0.00398	0.00398	0.0191	0.00402
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	0.0230	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.0114	0.00201
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	0.0617	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.0305	0.00201
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	0.0709	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.0334	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00	
	Analyzed:	Jun-14-18 15:22		Jun-14-18 15:43		Jun-14-18 15:49		Jun-14-18 16:05		Jun-14-18 16:10		Jun-14-18 16:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		18.5	5.00	13.3	4.98	75.4	5.00	182	4.99	9.63	4.96	94.4	5.00
TPH by SW8015 Mod	***Extracted:***	Jun-12-18 11:00		Jun-12-18 11:00		Jun-12-18 11:00		Jun-15-18 18:00		Jun-12-18 11:00		Jun-12-18 11:00	
	Analyzed:	Jun-12-18 13:51		Jun-12-18 14:54		Jun-12-18 15:14		Jun-18-18 12:03		Jun-12-18 15:56		Jun-12-18 16:16	
	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	204	15.0	<14.9	14.9	<15.0	15.0	50.4	15.0
Diesel Range Organics (DRO)		37.0	15.0	<15.0	15.0	4980	15.0	58.1	14.9	<15.0	15.0	1870	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	21.2	15.0
Total TPH		37.0	15.0	<15.0	15.0	5180	15.0	58.1	14.9	<15.0	15.0	1940	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 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-001	Date Collected:	06.08.18 12.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.5**	5.00	mg/kg	06.14.18 15.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 13.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**37.0**	15.0	mg/kg	06.12.18 13.51		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 13.51	U	1
Total TPH	PHC635	**37.0**	15.0	mg/kg	06.12.18 13.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	06.12.18 13.51	
o-Terphenyl	84-15-1	86	%	70-135	06.12.18 13.51	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-001	Date Collected:	06.08.18 12.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 10.02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 10.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	06.18.18 10.02	
1,4-Difluorobenzene	540-36-3	109	%	70-130	06.18.18 10.02	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-002	Date Collected:	06.08.18 12.35	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.3**	4.98	mg/kg	06.14.18 15.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 14.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 14.54	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 14.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 14.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	06.12.18 14.54	
o-Terphenyl	84-15-1	84	%	70-135	06.12.18 14.54	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-002	Date Collected:	06.08.18 12.35	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 11.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 11.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.18.18 11.51	
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.18.18 11.51	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-003	Date Collected:	06.08.18 12.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.4**	5.00	mg/kg	06.14.18 15.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**204**	15.0	mg/kg	06.12.18 15.14		1
Diesel Range Organics (DRO)	C10C28DRO	**4980**	15.0	mg/kg	06.12.18 15.14		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 15.14	U	1
Total TPH	PHC635	**5180**	15.0	mg/kg	06.12.18 15.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	06.12.18 15.14	
o-Terphenyl	84-15-1	95	%	70-135	06.12.18 15.14	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-003	Date Collected:	06.08.18 12.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.18.18 12.09	U	1
Toluene	108-88-3	**0.00306**	0.00200	mg/kg	06.18.18 12.09		1
Ethylbenzene	100-41-4	**0.00618**	0.00200	mg/kg	06.18.18 12.09		1
m,p-Xylenes	179601-23-1	**0.0387**	0.00401	mg/kg	06.18.18 12.09		1
o-Xylene	95-47-6	**0.0230**	0.00200	mg/kg	06.18.18 12.09		1
Total Xylenes	1330-20-7	**0.0617**	0.00200	mg/kg	06.18.18 12.09		1
Total BTEX		**0.0709**	0.00200	mg/kg	06.18.18 12.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.18.18 12.09	
4-Bromofluorobenzene	460-00-4	128	%	70-130	06.18.18 12.09	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-004	Date Collected:	06.08.18 12.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**182**	4.99	mg/kg	06.14.18 16.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 18.00	Basis:	Wet Weight
Seq Number:	3053883				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.18.18 12.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**58.1**	14.9	mg/kg	06.18.18 12.03		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.18.18 12.03	U	1
Total TPH	PHC635	**58.1**	14.9	mg/kg	06.18.18 12.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	06.18.18 12.03	
o-Terphenyl	84-15-1	88	%	70-135	06.18.18 12.03	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-004	Date Collected:	06.08.18 12.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.18.18 12.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.18.18 12.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	06.18.18 12.28	
1,4-Difluorobenzene	540-36-3	94	%	70-130	06.18.18 12.28	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-005	Date Collected:	06.08.18 12.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.63**	4.96	mg/kg	06.14.18 16.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 15.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 15.56	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 15.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 15.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	06.12.18 15.56	
o-Terphenyl	84-15-1	87	%	70-135	06.12.18 15.56	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-005	Date Collected:	06.08.18 12.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 12.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 12.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	06.18.18 12.46	
4-Bromofluorobenzene	460-00-4	93	%	70-130	06.18.18 12.46	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-006	Date Collected:	06.08.18 12.55	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**94.4**	5.00	mg/kg	06.14.18 16.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**50.4**	15.0	mg/kg	06.12.18 16.16		1
Diesel Range Organics (DRO)	C10C28DRO	**1870**	15.0	mg/kg	06.12.18 16.16		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**21.2**	15.0	mg/kg	06.12.18 16.16		1
Total TPH	PHC635	**1940**	15.0	mg/kg	06.12.18 16.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	06.12.18 16.16	
o-Terphenyl	84-15-1	129	%	70-135	06.12.18 16.16	

Certificate of Analytical Results 588895

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588895-006	Date Collected:	06.08.18 12.55	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.18.18 14.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.18.18 14.00	U	1
Ethylbenzene	100-41-4	**0.00287**	0.00201	mg/kg	06.18.18 14.00		1
m,p-Xylenes	179601-23-1	**0.0191**	0.00402	mg/kg	06.18.18 14.00		1
o-Xylene	95-47-6	**0.0114**	0.00201	mg/kg	06.18.18 14.00		1
Total Xylenes	1330-20-7	**0.0305**	0.00201	mg/kg	06.18.18 14.00		1
Total BTEX		**0.0334**	0.00201	mg/kg	06.18.18 14.00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	06.18.18 14.00	
1,4-Difluorobenzene	540-36-3	95	%	70-130	06.18.18 14.00	

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 588895

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Solid — Date Prep: 06.13.18
MB Sample Id: 7656631-1-BLK — LCS Sample Id: 7656631-1-BKS — LCSD Sample Id: 7656631-1-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	257	103	257	103	90-110	0	20	mg/kg	06.14.18 13:56	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Soil — Date Prep: 06.13.18
Parent Sample Id: 588924-003 — MS Sample Id: 588924-003 S — MSD Sample Id: 588924-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	259	104	262	106	90-110	1	20	mg/kg	06.14.18 14:12	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Soil — Date Prep: 06.13.18
Parent Sample Id: 588924-004 — MS Sample Id: 588924-004 S — MSD Sample Id: 588924-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	260	104	90-110	2	20	mg/kg	06.14.18 15:32	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3053764 — Matrix: Solid — Date Prep: 06.12.18
MB Sample Id: 7656742-1-BLK — LCS Sample Id: 7656742-1-BKS — LCSD Sample Id: 7656742-1-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	903	90	880	88	70-135	3	20	mg/kg	06.12.18 13:10	
Diesel Range Organics (DRO)	<15.0	1000	949	95	922	92	70-135	3	20	mg/kg	06.12.18 13:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		113		110		70-135	%	06.12.18 13:10
o-Terphenyl	97		106		104		70-135	%	06.12.18 13:10

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 588895

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3053883 — Matrix: Solid — Date Prep: 06.15.18
MB Sample Id: 7656922-1-BLK — LCS Sample Id: 7656922-1-BKS — LCSD Sample Id: 7656922-1-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	829	83	869	87	70-135	5	20	mg/kg	06.17.18 11:06	
Diesel Range Organics (DRO)	<15.0	1000	874	87	916	92	70-135	5	20	mg/kg	06.17.18 11:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		118		124		70-135	%	06.17.18 11:06
o-Terphenyl	89		100		105		70-135	%	06.17.18 11:06

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3053764 — Matrix: Soil — Date Prep: 06.12.18
Parent Sample Id: 588895-001 — MS Sample Id: 588895-001 S — MSD Sample Id: 588895-001 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	845	85	829	83	70-135	2	20	mg/kg	06.12.18 14:12	
Diesel Range Organics (DRO)	37.0	999	844	81	842	81	70-135	0	20	mg/kg	06.12.18 14:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		103		70-135	%	06.12.18 14:12
o-Terphenyl	90		90		70-135	%	06.12.18 14:12

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3053883 — Matrix: Soil — Date Prep: 06.15.18
Parent Sample Id: 589288-001 — MS Sample Id: 589288-001 S — MSD Sample Id: 589288-001 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	998	810	81	811	81	70-135	0	20	mg/kg	06.17.18 12:07	
Diesel Range Organics (DRO)	<15.0	998	820	82	820	82	70-135	0	20	mg/kg	06.17.18 12:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		113		70-135	%	06.17.18 12:07
o-Terphenyl	94		90		70-135	%	06.17.18 12:07

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 588895

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

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

Seq Number: 3053754 Matrix: Solid Date Prep: 06.18.18

MB Sample Id: 7656840-1-BLK LCS Sample Id: 7656840-1-BKS LCSD Sample Id: 7656840-1-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	0.106	106	0.0956	96	70-130	10	35	mg/kg	06.18.18 07:53	
Toluene	<0.00200	0.100	0.112	112	0.0994	100	70-130	12	35	mg/kg	06.18.18 07:53	
Ethylbenzene	<0.00200	0.100	0.112	112	0.0982	99	70-130	13	35	mg/kg	06.18.18 07:53	
m,p-Xylenes	<0.00401	0.200	0.233	117	0.206	104	70-130	12	35	mg/kg	06.18.18 07:53	
o-Xylene	<0.00200	0.100	0.110	110	0.0957	96	70-130	14	35	mg/kg	06.18.18 07:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		102		103		70-130	%	06.18.18 07:53
4-Bromofluorobenzene	86		102		96		70-130	%	06.18.18 07:53

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

Seq Number: 3053754 Matrix: Soil Date Prep: 06.18.18

Parent Sample Id: 588895-001 MS Sample Id: 588895-001 S MSD Sample Id: 588895-001 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	0.0732	73	0.0744	75	70-130	2	35	mg/kg	06.18.18 08:51	
Toluene	<0.00200	0.100	0.0767	77	0.0762	76	70-130	1	35	mg/kg	06.18.18 08:51	
Ethylbenzene	<0.00200	0.100	0.0763	76	0.0731	73	70-130	4	35	mg/kg	06.18.18 08:51	
m,p-Xylenes	<0.00401	0.200	0.159	80	0.152	76	70-130	5	35	mg/kg	06.18.18 08:51	
o-Xylene	<0.00200	0.100	0.0760	76	0.0712	71	70-130	7	35	mg/kg	06.18.18 08:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		109		70-130	%	06.18.18 08:51
4-Bromofluorobenzene	91		120		70-130	%	06.18.18 08:51

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)
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 # 588895

Client / Reporting Information

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

Project Information

Project Name/Number: PLU Big Sinks 25 Federal Battery / 012918093
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-TBD

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	TPH	Chloride	Field Comments
1	SS1	6"	6-8-18	1230	Soil	1									X	X	X	
2	SS2			1235														
3	SS3			1240														
4	SS4			1245														
5	SS5			1250														
6	SS6			1255														
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
- [x] Standard

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		6-8-18 16:29		Camie Wells	6-11-18 15:30	
2						10:45 6/12/18
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						✓ 2.1 RO 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: 06/12/2018 10:45:00 AM

Work Order #: 588895

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)?	2.1
#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: Katie Lowe Date: 06/12/2018

Checklist reviewed by: Jessica Kramer Date: 06/13/2018

Analytical Report 588898

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Big Sinks 25 Federal Battery

012918093

20-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)

20-JUN-18

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

Reference: XENCO Report No(s): **588898**
PLU Big Sinks 25 Federal Battery
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) 588898. 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. 588898 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

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

Sample Cross Reference 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS7	S	06-08-18 10:00	6 In	588898-001
SS8	S	06-08-18 10:05	6 In	588898-002
SS9	S	06-08-18 10:10	6 In	588898-003
SS10	S	06-08-18 10:20	6 In	588898-004
SS11	S	06-08-18 10:25	6 In	588898-005
SS12	S	06-08-18 10:30	6 In	588898-006
SS13	S	06-08-18 10:35	6 In	588898-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 25 Federal Battery

Project ID: *012918093*
Work Order Number(s): *588898*

Report Date: *20-JUN-18*
Date Received: *06/12/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3053859 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 588898-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.
Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 588898-001, -002, -003, -004, -005, -006, -007.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 588898

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 012918093
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Tue Jun-12-18 10:45 am
Report Date: 20-JUN-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	588898-001		588898-002		588898-003		588898-004		588898-005		588898-006	
	Field Id:	SS7		SS8		SS9		SS10		SS11		SS12	
	Depth:	6- In		6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-08-18 10:00		Jun-08-18 10:05		Jun-08-18 10:10		Jun-08-18 10:20		Jun-08-18 10:25		Jun-08-18 10:30	
BTEX by EPA 8021B	***Extracted:***	Jun-18-18 15:30		Jun-18-18 15:30		Jun-18-18 15:30		Jun-18-18 15:30		Jun-18-18 15:30		Jun-18-18 15:30	
	Analyzed:	Jun-18-18 21:12		Jun-18-18 21:30		Jun-18-18 21:49		Jun-18-18 23:55		Jun-19-18 00:14		Jun-19-18 00:30	
	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	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Jun-14-18 08:30		Jun-14-18 08:30		Jun-14-18 08:30		Jun-14-18 08:30		Jun-15-18 08:00		Jun-15-18 08:00	
	Analyzed:	Jun-14-18 17:24		Jun-14-18 17:46		Jun-14-18 17:29		Jun-14-18 17:41		Jun-15-18 11:04		Jun-15-18 10:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2390	24.8	321	5.00	1580	25.0	2390	24.6	133	4.93	93.4	5.00
TPH by SW8015 Mod	***Extracted:***	Jun-15-18 12:00		Jun-15-18 12:00		Jun-15-18 12:00		Jun-15-18 12:00		Jun-15-18 12:00		Jun-15-18 12:00	
	Analyzed:	Jun-15-18 15:47		Jun-15-18 16:07		Jun-15-18 16:27		Jun-15-18 16:47		Jun-15-18 17:08		Jun-15-18 17:28	
	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	18.0	15.0	19.0	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	18.0	15.0	19.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 588898

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 012918093
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Tue Jun-12-18 10:45 am
Report Date: 20-JUN-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	588898-007					
	Field Id:	SS13					
	Depth:	6- In					
	Matrix:	SOIL					
	Sampled:	Jun-08-18 10:35					
BTEX by EPA 8021B	***Extracted:***	Jun-18-18 15:30					
	Analyzed:	Jun-19-18 00:48					
	Units/RL:	mg/kg	RL				
Benzene		<0.00202	0.00202				
Toluene		<0.00202	0.00202				
Ethylbenzene		<0.00202	0.00202				
m,p-Xylenes		<0.00403	0.00403				
o-Xylene		<0.00202	0.00202				
Total Xylenes		<0.00202	0.00202				
Total BTEX		<0.00202	0.00202				
Inorganic Anions by EPA 300	***Extracted:***	Jun-15-18 08:00					
	Analyzed:	Jun-15-18 11:09					
	Units/RL:	mg/kg	RL				
Chloride		4240	49.9				
TPH by SW8015 Mod	***Extracted:***	Jun-15-18 12:00					
	Analyzed:	Jun-15-18 17:48					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0				
Oil Range Hydrocarbons (ORO)		<15.0	15.0				
Total TPH		<15.0	15.0				

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Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-001	Date Collected:	06.08.18 10.00	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.14.18 08.30	Basis:	Wet Weight
Seq Number:	3053433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2390**	24.8	mg/kg	06.14.18 17.24		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	06.15.18 15.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	06.15.18 15.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	06.15.18 15.47	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.15.18 15.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-135	06.15.18 15.47	
o-Terphenyl	84-15-1	76	%	70-135	06.15.18 15.47	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-001	Date Collected:	06.08.18 10.00	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.18.18 21.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.18.18 21.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	06.18.18 21.12	
4-Bromofluorobenzene	460-00-4	95	%	70-130	06.18.18 21.12	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-002	Date Collected:	06.08.18 10.05	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.14.18 08.30	Basis:	Wet Weight
Seq Number:	3053433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**321**	5.00	mg/kg	06.14.18 17.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 16.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.15.18 16.07	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 16.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.18 16.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	06.15.18 16.07	
o-Terphenyl	84-15-1	79	%	70-135	06.15.18 16.07	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-002	Date Collected:	06.08.18 10.05	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.18.18 21.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.18.18 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.18.18 21.30	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.18.18 21.30	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-003	Date Collected:	06.08.18 10.10	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.14.18 08.30	Basis:	Wet Weight
Seq Number:	3053433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1580**	25.0	mg/kg	06.14.18 17.29		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 16.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.15.18 16.27	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 16.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.18 16.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	06.15.18 16.27	
o-Terphenyl	84-15-1	77	%	70-135	06.15.18 16.27	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-003	Date Collected:	06.08.18 10.10	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.18.18 21.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.18.18 21.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.18.18 21.49	
4-Bromofluorobenzene	460-00-4	89	%	70-130	06.18.18 21.49	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-004	Date Collected:	06.08.18 10.20	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.14.18 08.30	Basis:	Wet Weight
Seq Number:	3053433				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2390**	24.6	mg/kg	06.14.18 17.41		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 16.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**18.0**	15.0	mg/kg	06.15.18 16.47		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 16.47	U	1
Total TPH	PHC635	**18.0**	15.0	mg/kg	06.15.18 16.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	06.15.18 16.47	
o-Terphenyl	84-15-1	94	%	70-135	06.15.18 16.47	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-004	Date Collected:	06.08.18 10.20	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 23.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.18.18 23.55	
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.18.18 23.55	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-005	Date Collected:	06.08.18 10.25	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.15.18 08.00	Basis:	Wet Weight
Seq Number:	3053704				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**133**	4.93	mg/kg	06.15.18 11.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 17.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	**19.0**	15.0	mg/kg	06.15.18 17.08		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 17.08	U	1
Total TPH	PHC635	**19.0**	15.0	mg/kg	06.15.18 17.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	06.15.18 17.08	
o-Terphenyl	84-15-1	80	%	70-135	06.15.18 17.08	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-005	Date Collected:	06.08.18 10.25	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.19.18 00.14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.19.18 00.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.19.18 00.14	
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.19.18 00.14	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-006	Date Collected:	06.08.18 10.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.15.18 08.00	Basis:	Wet Weight
Seq Number:	3053704				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**93.4**	5.00	mg/kg	06.15.18 10.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 17.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.15.18 17.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 17.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.18 17.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	06.15.18 17.28	
o-Terphenyl	84-15-1	81	%	70-135	06.15.18 17.28	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-006	Date Collected:	06.08.18 10.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.19.18 00.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.19.18 00.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	06.19.18 00.30	
1,4-Difluorobenzene	540-36-3	101	%	70-130	06.19.18 00.30	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-007	Date Collected:	06.08.18 10.35	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.15.18 08.00	Basis:	Wet Weight
Seq Number:	3053704				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4240**	49.9	mg/kg	06.15.18 11.09		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.15.18 12.00	Basis:	Wet Weight
Seq Number:	3053586				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.15.18 17.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.15.18 17.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.15.18 17.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.18 17.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	06.15.18 17.48	
o-Terphenyl	84-15-1	80	%	70-135	06.15.18 17.48	

Certificate of Analytical Results 588898

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588898-007	Date Collected:	06.08.18 10.35	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 15.30	Basis:	Wet Weight
Seq Number:	3053859				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.19.18 00.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.19.18 00.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.19.18 00.48	
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.19.18 00.48	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 588898

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053433 — Matrix: Solid — Date Prep: 06.14.18
MB Sample Id: 7656636-1-BLK — LCS Sample Id: 7656636-1-BKS — LCSD Sample Id: 7656636-1-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	257	103	257	103	90-110	0	20	mg/kg	06.14.18 12:29	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053704 — Matrix: Solid — Date Prep: 06.15.18
MB Sample Id: 7656726-1-BLK — LCS Sample Id: 7656726-1-BKS — LCSD Sample Id: 7656726-1-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	252	101	251	100	90-110	0	20	mg/kg	06.15.18 09:21	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053433 — Matrix: Soil — Date Prep: 06.14.18
Parent Sample Id: 588898-002 — MS Sample Id: 588898-002 S — MSD Sample Id: 588898-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	321	250	558	95	559	95	90-110	0	20	mg/kg	06.14.18 17:57	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053433 — Matrix: Soil — Date Prep: 06.14.18
Parent Sample Id: 589043-001 — MS Sample Id: 589043-001 S — MSD Sample Id: 589043-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.35	247	270	106	264	104	90-110	2	20	mg/kg	06.14.18 12:46	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053704 — Matrix: Soil — Date Prep: 06.15.18
Parent Sample Id: 588898-006 — MS Sample Id: 588898-006 S — MSD Sample Id: 588898-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	93.4	250	336	97	336	97	90-110	0	20	mg/kg	06.15.18 10:53	

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 588898

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3053704 Matrix: Soil Date Prep: 06.15.18
Parent Sample Id: 589317-001 MS Sample Id: 589317-001 S MSD Sample Id: 589317-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.86	250	254	99	254	99	90-110	0	20	mg/kg	06.15.18 09:37	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3053586 Matrix: Solid Date Prep: 06.15.18
MB Sample Id: 7656745-1-BLK LCS Sample Id: 7656745-1-BKS LCSD Sample Id: 7656745-1-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	837	84	847	85	70-135	1	20	mg/kg	06.15.18 13:26	
Diesel Range Organics (DRO)	<15.0	1000	827	83	854	85	70-135	3	20	mg/kg	06.15.18 13:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	80		107		109		70-135	%	06.15.18 13:26
o-Terphenyl	84		86		83		70-135	%	06.15.18 13:26

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3053586 Matrix: Soil Date Prep: 06.15.18
Parent Sample Id: 589277-001 MS Sample Id: 589277-001 S MSD Sample Id: 589277-001 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	820	82	871	87	70-135	6	20	mg/kg	06.15.18 14:26	
Diesel Range Organics (DRO)	331	999	1120	79	1160	83	70-135	4	20	mg/kg	06.15.18 14:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		102		70-135	%	06.15.18 14:26
o-Terphenyl	89		90		70-135	%	06.15.18 14:26

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 588898

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

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

Seq Number: 3053859 Matrix: Solid Date Prep: 06.18.18

MB Sample Id: 7656905-1-BLK LCS Sample Id: 7656905-1-BKS LCSD Sample Id: 7656905-1-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	0.101	100	0.0966	97	70-130	4	35	mg/kg	06.18.18 17:54	
Toluene	<0.00202	0.101	0.105	104	0.103	103	70-130	2	35	mg/kg	06.18.18 17:54	
Ethylbenzene	<0.00202	0.101	0.105	104	0.103	103	70-130	2	35	mg/kg	06.18.18 17:54	
m,p-Xylenes	<0.00403	0.202	0.219	108	0.216	108	70-130	1	35	mg/kg	06.18.18 17:54	
o-Xylene	<0.00202	0.101	0.106	105	0.100	100	70-130	6	35	mg/kg	06.18.18 17:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		95		107		70-130	%	06.18.18 17:54
4-Bromofluorobenzene	88		106		97		70-130	%	06.18.18 17:54

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

Seq Number: 3053859 Matrix: Soil Date Prep: 06.18.18

Parent Sample Id: 588898-001 MS Sample Id: 588898-001 S MSD Sample Id: 588898-001 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	0.0648	65	0.0715	72	70-130	10	35	mg/kg	06.18.18 18:31	X
Toluene	<0.00199	0.0996	0.0647	65	0.0731	73	70-130	12	35	mg/kg	06.18.18 18:31	X
Ethylbenzene	<0.00199	0.0996	0.0626	63	0.0710	71	70-130	13	35	mg/kg	06.18.18 18:31	X
m,p-Xylenes	<0.00398	0.199	0.132	66	0.146	73	70-130	10	35	mg/kg	06.18.18 18:31	X
o-Xylene	<0.00199	0.0996	0.0611	61	0.0702	70	70-130	14	35	mg/kg	06.18.18 18:31	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		107		70-130	%	06.18.18 18:31
4-Bromofluorobenzene	105		110		70-130	%	06.18.18 18:31

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

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 # 588898

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc - Permian Office
Company Address: 3300 North "A" St, Bldg 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: PLU Big Sinks 25 Federal Battery / 012918093
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2526

Analytical Information

BTEX
TPH
Chloride

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	Chloride	Field Comments
1	SS7	6"	6-8-18	1000	Soil	1									X	X	X	
2	SS8			1005														
3	SS9			1010														
4	SS10			1020														
5	SS11			1025														
6	SS12			1030														
7	SS13			1035														
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 ✓ Standard

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		6-8-18 16:29	1	2 Camie Wells	6-11-18 15:30	2 6/12/18 1045
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice ✓ Cooler Temp. 2.1 R 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: 06/12/2018 10:45:00 AM

Work Order #: 588898

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)?	2.1
#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: Katie Lowe Date: 06/12/2018

Checklist reviewed by: Jessica Kramer Date: 06/12/2018

Analytical Report 588896

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Big Sinks 25 Federal Battery

012918093

20-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)

20-JUN-18

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

Reference: XENCO Report No(s): **588896**
PLU Big Sinks 25 Federal Battery
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) 588896. 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. 588896 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 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS14	S	06-08-18 10:40	6 In	588896-001
SS15	S	06-08-18 10:45	6 In	588896-002
SS16	S	06-08-18 10:50	6 In	588896-003
SS17	S	06-08-18 10:55	6 In	588896-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 25 Federal Battery

Project ID: *012918093*
Work Order Number(s): *588896*

Report Date: *20-JUN-18*
Date Received: *06/12/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3053754 BTEX by EPA 8021B

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

Certificate of Analysis Summary 588896

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 012918093
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Tue Jun-12-18 10:45 am
Report Date: 20-JUN-18
Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	588896-001		588896-002		588896-003		588896-004							
	Field Id:	SS14		SS15		SS16		SS17							
	Depth:	6- In		6- In		6- In		6- In							
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	Jun-08-18 10:40		Jun-08-18 10:45		Jun-08-18 10:50		Jun-08-18 10:55							
BTEX by EPA 8021B	***Extracted:***	Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00		Jun-18-18 08:00							
	Analyzed:	Jun-18-18 14:18		Jun-18-18 14:37		Jun-18-18 14:55		Jun-18-18 15:13							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
m,p-Xylenes		<0.00404	0.00404	<0.00401	0.00401	<0.00398	0.00398	<0.00398	0.00398						
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199						
Inorganic Anions by EPA 300	***Extracted:***	Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00		Jun-13-18 15:00							
	Analyzed:	Jun-14-18 16:21		Jun-14-18 16:26		Jun-14-18 16:32		Jun-14-18 16:37							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		3570	25.0	7780	49.3	7250	49.8	6250	49.6						
TPH by SW8015 Mod	***Extracted:***	Jun-12-18 11:00		Jun-12-18 11:00		Jun-12-18 11:00		Jun-12-18 11:00							
	Analyzed:	Jun-12-18 16:37		Jun-12-18 16:58		Jun-12-18 17:18		Jun-12-18 17:39							
	Units/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						
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0						
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0						
Total TPH		<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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-001	Date Collected:	06.08.18 10.40	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3570**	25.0	mg/kg	06.14.18 16.21		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 16.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 16.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 16.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	06.12.18 16.37	
o-Terphenyl	84-15-1	91	%	70-135	06.12.18 16.37	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-001	Date Collected:	06.08.18 10.40	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.18.18 14.18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.18.18 14.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	06.18.18 14.18	
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.18.18 14.18	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-002	Date Collected:	06.08.18 10.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7780**	49.3	mg/kg	06.14.18 16.26		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 16.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 16.58	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 16.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 16.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	06.12.18 16.58	
o-Terphenyl	84-15-1	89	%	70-135	06.12.18 16.58	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS15**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-002	Date Collected:	06.08.18 10.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.18.18 14.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.18.18 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.18.18 14.37	
4-Bromofluorobenzene	460-00-4	122	%	70-130	06.18.18 14.37	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-003	Date Collected:	06.08.18 10.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7250**	49.8	mg/kg	06.14.18 16.32		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 17.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 17.18	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 17.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 17.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	06.12.18 17.18	
o-Terphenyl	84-15-1	92	%	70-135	06.12.18 17.18	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS16**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-003	Date Collected:	06.08.18 10.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 14.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 14.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.18.18 14.55	
4-Bromofluorobenzene	460-00-4	106	%	70-130	06.18.18 14.55	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS17**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-004	Date Collected:	06.08.18 10.55	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	06.13.18 15.00	Basis:	Wet Weight
Seq Number:	3053525				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6250**	49.6	mg/kg	06.14.18 16.37		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.12.18 11.00	Basis:	Wet Weight
Seq Number:	3053764				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.12.18 17.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.12.18 17.39	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	06.12.18 17.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.12.18 17.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	06.12.18 17.39	
o-Terphenyl	84-15-1	89	%	70-135	06.12.18 17.39	

Certificate of Analytical Results 588896

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SS17**	Matrix:	Soil	Date Received:	06.12.18 10.45
Lab Sample Id:	588896-004	Date Collected:	06.08.18 10.55	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	06.18.18 08.00	Basis:	Wet Weight
Seq Number:	3053754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.18.18 15.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.18.18 15.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	06.18.18 15.13	
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.18.18 15.13	

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 588896

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Solid — Date Prep: 06.13.18
MB Sample Id: 7656631-1-BLK — LCS Sample Id: 7656631-1-BKS — LCSD Sample Id: 7656631-1-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	257	103	257	103	90-110	0	20	mg/kg	06.14.18 13:56	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Soil — Date Prep: 06.13.18
Parent Sample Id: 588924-003 — MS Sample Id: 588924-003 S — MSD Sample Id: 588924-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	259	104	262	106	90-110	1	20	mg/kg	06.14.18 14:12	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3053525 — Matrix: Soil — Date Prep: 06.13.18
Parent Sample Id: 588924-004 — MS Sample Id: 588924-004 S — MSD Sample Id: 588924-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	260	104	90-110	2	20	mg/kg	06.14.18 15:32	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3053764 — Matrix: Solid — Date Prep: 06.12.18
MB Sample Id: 7656742-1-BLK — LCS Sample Id: 7656742-1-BKS — LCSD Sample Id: 7656742-1-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	903	90	880	88	70-135	3	20	mg/kg	06.12.18 13:10	
Diesel Range Organics (DRO)	<15.0	1000	949	95	922	92	70-135	3	20	mg/kg	06.12.18 13:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		113		110		70-135	%	06.12.18 13:10
o-Terphenyl	97		106		104		70-135	%	06.12.18 13:10

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 588896

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3053764 | Matrix: Soil | Date Prep: 06.12.18
Parent Sample Id: 588895-001 | MS Sample Id: 588895-001 S | MSD Sample Id: 588895-001 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	845	85	829	83	70-135	2	20	mg/kg	06.12.18 14:12	
Diesel Range Organics (DRO)	37.0	999	844	81	842	81	70-135	0	20	mg/kg	06.12.18 14:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		103		70-135	%	06.12.18 14:12
o-Terphenyl	90		90		70-135	%	06.12.18 14:12

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3053754 | Matrix: Solid | Date Prep: 06.18.18
MB Sample Id: 7656840-1-BLK | LCS Sample Id: 7656840-1-BKS | LCSD Sample Id: 7656840-1-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	0.106	106	0.0956	96	70-130	10	35	mg/kg	06.18.18 07:53	
Toluene	<0.00200	0.100	0.112	112	0.0994	100	70-130	12	35	mg/kg	06.18.18 07:53	
Ethylbenzene	<0.00200	0.100	0.112	112	0.0982	99	70-130	13	35	mg/kg	06.18.18 07:53	
m,p-Xylenes	<0.00401	0.200	0.233	117	0.206	104	70-130	12	35	mg/kg	06.18.18 07:53	
o-Xylene	<0.00200	0.100	0.110	110	0.0957	96	70-130	14	35	mg/kg	06.18.18 07:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		102		103		70-130	%	06.18.18 07:53
4-Bromofluorobenzene	86		102		96		70-130	%	06.18.18 07:53

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3053754 | Matrix: Soil | Date Prep: 06.18.18
Parent Sample Id: 588895-001 | MS Sample Id: 588895-001 S | MSD Sample Id: 588895-001 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	0.0732	73	0.0744	75	70-130	2	35	mg/kg	06.18.18 08:51	
Toluene	<0.00200	0.100	0.0767	77	0.0762	76	70-130	1	35	mg/kg	06.18.18 08:51	
Ethylbenzene	<0.00200	0.100	0.0763	76	0.0731	73	70-130	4	35	mg/kg	06.18.18 08:51	
m,p-Xylenes	<0.00401	0.200	0.159	80	0.152	76	70-130	5	35	mg/kg	06.18.18 08:51	
o-Xylene	<0.00200	0.100	0.0760	76	0.0712	71	70-130	7	35	mg/kg	06.18.18 08:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		109		70-130	%	06.18.18 08:51
4-Bromofluorobenzene	91		120		70-130	%	06.18.18 08:51

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

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CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 588896

Client / Reporting Information

Company Name / Branch: ET Environmental, Inc - Permian OKPA
Company Address: 3300 North "A" St, Bldg 1, Unit H103 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: PLU Big Sinks 25 Federal Battery / 012918093
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-4327

Analytical Information

BTEX
TPH
Chlorides

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	SS14	6"	6-8-18	1040	Soil	1									X	X	X	
2	SS15	"	"	1045	"	"									"	"	"	
3	SS16	"	"	1050	"	"									"	"	"	
4	SS17	"	"	1055	"	"									"	"	"	
5																		
6																		
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 — Standard

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		6-8-18 16:29	1	2 Samie Wells	6-11-18 15:30	2 6/12/18 10:45
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 ✓ Cooler Temp. 2.1 2.1 R8 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: 06/12/2018 10:45:00 AM

Work Order #: 588896

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)?	2.1
#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: Katie Lowe Date: 06/12/2018

Checklist reviewed by: Jessica Kramer Date: 06/13/2018

Analytical Report 614582

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #5H

2RP-4779, 2RP-4775

20-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

20-FEB-19

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

Reference: XENCO Report No(s): **614582**
PLU CVX JV #5H
Project Address: Delaware Basin

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) 614582. 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. 614582 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 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1A	S	02-08-19 16:05	2 ft	614582-001
PH01	S	02-08-19 16:15	0.5 ft	614582-002
PH01A	S	02-08-19 16:20	2 ft	614582-003
PH02	S	02-08-19 16:35	0.5 ft	614582-004
PH02A	S	02-08-19 16:45	2 ft	614582-005
SS6A	S	02-08-19 16:50	2 ft	614582-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #5H

Project ID: *2RP-4779, 2RP-4775*
Work Order Number(s): *614582*

Report Date: *20-FEB-19*
Date Received: *02/14/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3079752 BTEX by EPA 8021B

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

Certificate of Analysis Summary 614582

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #5H

Project Id: 2RP-4779, 2RP-4775
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Thu Feb-14-19 11:52 am
Report Date: 20-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614582-001		614582-002		614582-003		614582-004		614582-005		614582-006	
	Field Id:	SS1A		PH01		PH01A		PH02		PH02A		SS6A	
	Depth:	2- ft		0.5- ft		2- ft		0.5- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-08-19 16:05		Feb-08-19 16:15		Feb-08-19 16:20		Feb-08-19 16:35		Feb-08-19 16:45		Feb-08-19 16:50	
BTEX by EPA 8021B	*Extracted:*	Feb-19-19 12:00		Feb-19-19 12:00		Feb-19-19 12:00		Feb-19-19 12:00		Feb-19-19 12:00		Feb-19-19 12:00	
	Analyzed:	Feb-20-19 09:06		Feb-20-19 09:25		Feb-20-19 09:44		Feb-20-19 10:03		Feb-20-19 10:22		Feb-20-19 10:41	
	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	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	*Extracted:*	Feb-15-19 15:45		Feb-15-19 15:45		Feb-15-19 15:45		Feb-15-19 15:45		Feb-15-19 15:45		Feb-15-19 15:45	
	Analyzed:	Feb-15-19 18:05		Feb-15-19 18:24		Feb-15-19 18:30		Feb-15-19 18:50		Feb-15-19 18:56		Feb-15-19 19:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.99	4.99	21.8	4.97	<4.98	4.98	17.1	4.99	<5.00	5.00	12.5	4.95
TPH by SW8015 Mod	*Extracted:*	Feb-15-19 15:00		Feb-15-19 15:00		Feb-15-19 15:00		Feb-15-19 15:00		Feb-15-19 15:00		Feb-15-19 15:00	
	Analyzed:	Feb-15-19 20:23		Feb-15-19 21:21		Feb-15-19 21:40		Feb-15-19 21:59		Feb-15-19 22:19		Feb-15-19 22:38	
	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	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	564	15.0	<15.0	15.0	43.3	15.0	<14.9	14.9	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	75.4	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	639	15.0	<15.0	15.0	43.3	15.0	<14.9	14.9	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-001	Date Collected:	02.08.19 16.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	02.15.19 18.05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.19 20.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.19 20.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.15.19 20.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.19 20.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.15.19 20.23	
o-Terphenyl	84-15-1	93	%	70-135	02.15.19 20.23	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**SS1A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-001	Date Collected:	02.08.19 16.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.20.19 09.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.20.19 09.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	02.20.19 09.06	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.20.19 09.06	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-002	Date Collected:	02.08.19 16.15	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.8**	4.97	mg/kg	02.15.19 18.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.19 21.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**564**	15.0	mg/kg	02.15.19 21.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**75.4**	15.0	mg/kg	02.15.19 21.21		1
Total TPH	PHC635	**639**	15.0	mg/kg	02.15.19 21.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.15.19 21.21	
o-Terphenyl	84-15-1	101	%	70-135	02.15.19 21.21	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-002	Date Collected:	02.08.19 16.15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.20.19 09.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.20.19 09.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.20.19 09.25	
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.20.19 09.25	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-003	Date Collected:	02.08.19 16.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	02.15.19 18.30	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.19 21.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.19 21.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.15.19 21.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.19 21.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.15.19 21.40	
o-Terphenyl	84-15-1	106	%	70-135	02.15.19 21.40	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-003	Date Collected:	02.08.19 16.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.20.19 09.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.20.19 09.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.20.19 09.44	
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.20.19 09.44	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-004	Date Collected:	02.08.19 16.35	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	4.99	mg/kg	02.15.19 18.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.19 21.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**43.3**	15.0	mg/kg	02.15.19 21.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.15.19 21.59	U	1
Total TPH	PHC635	**43.3**	15.0	mg/kg	02.15.19 21.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.15.19 21.59	
o-Terphenyl	84-15-1	91	%	70-135	02.15.19 21.59	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-004	Date Collected:	02.08.19 16.35	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.20.19 10.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.20.19 10.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.20.19 10.03	
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.20.19 10.03	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-005	Date Collected:	02.08.19 16.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.15.19 18.56	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.15.19 22.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.15.19 22.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.15.19 22.19	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.15.19 22.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.15.19 22.19	
o-Terphenyl	84-15-1	106	%	70-135	02.15.19 22.19	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-005	Date Collected:	02.08.19 16.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.20.19 10.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.20.19 10.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.20.19 10.22	
4-Bromofluorobenzene	460-00-4	109	%	70-130	02.20.19 10.22	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**SS6A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-006	Date Collected:	02.08.19 16.50	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.15.19 15.45	Basis:	Wet Weight
Seq Number:	3079394				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.5**	4.95	mg/kg	02.15.19 19.02		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.15.19 15.00	Basis:	Wet Weight
Seq Number:	3079495				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.15.19 22.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.15.19 22.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.15.19 22.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.15.19 22.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.15.19 22.38	
o-Terphenyl	84-15-1	105	%	70-135	02.15.19 22.38	

Certificate of Analytical Results 614582

LT Environmental, Inc., Arvada, CO

PLU CVX JV #5H

Sample Id:	**SS6A**	Matrix:	Soil	Date Received:	02.14.19 11.52
Lab Sample Id:	614582-006	Date Collected:	02.08.19 16.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.19.19 12.00	Basis:	Wet Weight
Seq Number:	3079752				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.20.19 10.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.20.19 10.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	02.20.19 10.41	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.20.19 10.41	

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 614582

LT Environmental, Inc.

PLU CVX JV #5H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079394 — Matrix: Solid — Date Prep: 02.15.19
MB Sample Id: 7671867-1-BLK — LCS Sample Id: 7671867-1-BKS — LCSD Sample Id: 7671867-1-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	243	97	234	94	90-110	4	20	mg/kg	02.15.19 16:19	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079394 — Matrix: Soil — Date Prep: 02.15.19
Parent Sample Id: 614571-015 — MS Sample Id: 614571-015 S — MSD Sample Id: 614571-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.850	248	247	100	255	103	90-110	3	20	mg/kg	02.15.19 16:38	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079394 — Matrix: Soil — Date Prep: 02.15.19
Parent Sample Id: 614582-001 — MS Sample Id: 614582-001 S — MSD Sample Id: 614582-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.857	250	264	106	245	98	90-110	7	20	mg/kg	02.15.19 18:11	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079495 — Matrix: Solid — Date Prep: 02.15.19
MB Sample Id: 7671969-1-BLK — LCS Sample Id: 7671969-1-BKS — LCSD Sample Id: 7671969-1-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)	<8.00	1000	907	91	1040	104	70-135	14	20	mg/kg	02.15.19 19:44	
Diesel Range Organics (DRO)	<8.13	1000	979	98	1190	119	70-135	19	20	mg/kg	02.15.19 19:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		129		115		70-135	%	02.15.19 19:44
o-Terphenyl	124		127		130		70-135	%	02.15.19 19:44

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 614582

LT Environmental, Inc.

PLU CVX JV #5H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079495 — Matrix: Soil — Date Prep: 02.15.19
Parent Sample Id: 614582-001 — MS Sample Id: 614582-001 S — MSD Sample Id: 614582-001 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)	<7.99	999	997	100	972	97	70-135	3	20	mg/kg	02.15.19 20:42	
Diesel Range Organics (DRO)	<8.12	999	1120	112	1090	109	70-135	3	20	mg/kg	02.15.19 20:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		128		70-135	%	02.15.19 20:42
o-Terphenyl	117		119		70-135	%	02.15.19 20:42

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3079752 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672139-1-BLK — LCS Sample Id: 7672139-1-BKS — LCSD Sample Id: 7672139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.124	123	0.124	124	70-130	0	35	mg/kg	02.20.19 03:09	
Toluene	<0.000459	0.101	0.106	105	0.105	105	70-130	1	35	mg/kg	02.20.19 03:09	
Ethylbenzene	<0.000569	0.101	0.0993	98	0.0987	99	70-130	1	35	mg/kg	02.20.19 03:09	
m,p-Xylenes	<0.00102	0.202	0.197	98	0.196	98	70-130	1	35	mg/kg	02.20.19 03:09	
o-Xylene	<0.000347	0.101	0.0988	98	0.0984	98	70-130	0	35	mg/kg	02.20.19 03:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		111		70-130	%	02.20.19 03:09
4-Bromofluorobenzene	93		100		98		70-130	%	02.20.19 03:09

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3079752 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614584-002 — MS Sample Id: 614584-002 S — MSD Sample Id: 614584-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.112	112	0.115	115	70-130	3	35	mg/kg	02.20.19 03:47	
Toluene	<0.000456	0.100	0.0955	96	0.0973	97	70-130	2	35	mg/kg	02.20.19 03:47	
Ethylbenzene	<0.000565	0.100	0.0859	86	0.0887	89	70-130	3	35	mg/kg	02.20.19 03:47	
m,p-Xylenes	<0.00101	0.200	0.171	86	0.176	88	70-130	3	35	mg/kg	02.20.19 03:47	
o-Xylene	<0.000344	0.100	0.0873	87	0.0896	90	70-130	3	35	mg/kg	02.20.19 03:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		70-130	%	02.20.19 03:47
4-Bromofluorobenzene	104		103		70-130	%	02.20.19 03:47

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

Chain of Custody

Work Order No: 614582

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

Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178	Email:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JV #5H	Turn Around	
Project Number:	2RP-4779, 2RP-4775	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3/0.2	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS1A	S	2/8/19	1605	2'	1	X	X	X
PH01			1615	0.5'		X	X	X
PH01A			1620	2'		X	X	X
PH02			1635	0.5'		X	X	X
PH02A			1645	2'		X	X	X
SS6A			1650	2'		X	X	X
			BOB			2/8/19		

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

discrete

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2/13/19 12:30			
2						2/14/19 1152
3						
4						
5						
6						

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/14/2019 11:52:00 AM

Work Order #: 614582

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
#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)?	**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: 02/14/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/14/2019

Jessica Kramer

Analytical Report 614846

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

26-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

26-FEB-19

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

Reference: XENCO Report No(s): **614846**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 614846. 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. 614846 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.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05	S	02-13-19 10:35	1	614846-001
SW06	S	02-13-19 10:37	1	614846-002
SW08	S	02-13-19 11:40	1	614846-003
SW07	S	02-13-19 11:42	1	614846-004
FS03	S	02-13-19 14:00	1	614846-005
FS04	S	02-13-19 14:40	1	614846-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *614846*

Report Date: *26-FEB-19*
Date Received: *02/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3079750 Inorganic Anions by EPA 300

Lab Sample ID 614851-005 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: 614846-001, -002, -003, -004, -005, -006.

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

Batch: LBA-3080174 BTEX by EPA 8021B

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

Certificate of Analysis Summary 614846

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Feb-18-19 07:33 am
Report Date: 26-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614846-001		614846-002		614846-003		614846-004		614846-005		614846-006	
	Field Id:	SW05		SW06		SW08		SW07		FS03		FS04	
	Depth:	1-		1-		1-		1-		1-		1-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-13-19 10:35		Feb-13-19 10:37		Feb-13-19 11:40		Feb-13-19 11:42		Feb-13-19 14:00		Feb-13-19 14:40	
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 13:30		Feb-22-19 13:30		Feb-22-19 13:30		Feb-22-19 13:30		Feb-22-19 13:30		Feb-22-19 13:30	
	Analyzed:	Feb-23-19 01:00		Feb-23-19 01:19		Feb-23-19 01:38		Feb-23-19 01:57		Feb-23-19 02:16		Feb-23-19 02:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00400	0.00400	<0.00400	0.00400	<0.00402	0.00402	<0.00404	0.00404
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50	
	Analyzed:	Feb-19-19 23:28		Feb-19-19 23:34		Feb-19-19 23:41		Feb-19-19 23:53		Feb-19-19 23:47		Feb-20-19 00:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		791	4.96	1000	4.95	1540	24.8	1140	4.95	2410	25.0	3750	24.8
TPH by SW8015 Mod	***Extracted:***	Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00	
	Analyzed:	Feb-18-19 13:05		Feb-18-19 14:04		Feb-18-19 14:24		Feb-18-19 14:44		Feb-18-19 15:04		Feb-18-19 15:24	
	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)		120	15.0	15.2	15.0	42.2	15.0	<15.0	15.0	<15.0	15.0	23.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		120	15.0	15.2	15.0	42.2	15.0	<15.0	15.0	<15.0	15.0	23.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-001	Date Collected:	02.13.19 10.35	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**791**	4.96	mg/kg	02.19.19 23.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 13.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**120**	15.0	mg/kg	02.18.19 13.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 13.05	U	1
Total TPH	PHC635	**120**	15.0	mg/kg	02.18.19 13.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.18.19 13.05	
o-Terphenyl	84-15-1	96	%	70-135	02.18.19 13.05	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-001	Date Collected:	02.13.19 10.35	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 01.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.23.19 01.00	
4-Bromofluorobenzene	460-00-4	123	%	70-130	02.23.19 01.00	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-002	Date Collected:	02.13.19 10.37	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1000**	4.95	mg/kg	02.19.19 23.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 14.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.2**	15.0	mg/kg	02.18.19 14.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 14.04	U	1
Total TPH	PHC635	**15.2**	15.0	mg/kg	02.18.19 14.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	02.18.19 14.04	
o-Terphenyl	84-15-1	105	%	70-135	02.18.19 14.04	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-002	Date Collected:	02.13.19 10.37	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 01.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 01.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	02.23.19 01.19	
4-Bromofluorobenzene	460-00-4	127	%	70-130	02.23.19 01.19	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-003	Date Collected:	02.13.19 11.40	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1540**	24.8	mg/kg	02.19.19 23.41		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 14.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**42.2**	15.0	mg/kg	02.18.19 14.24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 14.24	U	1
Total TPH	PHC635	**42.2**	15.0	mg/kg	02.18.19 14.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.18.19 14.24	
o-Terphenyl	84-15-1	95	%	70-135	02.18.19 14.24	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-003	Date Collected:	02.13.19 11.40	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 01.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 01.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	02.23.19 01.38	
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.23.19 01.38	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-004	Date Collected:	02.13.19 11.42	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	4.95	mg/kg	02.19.19 23.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 14.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.18.19 14.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 14.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.18.19 14.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.18.19 14.44	
o-Terphenyl	84-15-1	96	%	70-135	02.18.19 14.44	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-004	Date Collected:	02.13.19 11.42	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 01.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 01.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.23.19 01.57	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 01.57	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-005	Date Collected:	02.13.19 14.00	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2410**	25.0	mg/kg	02.19.19 23.47		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 15.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.18.19 15.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 15.04	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.18.19 15.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.18.19 15.04	
o-Terphenyl	84-15-1	94	%	70-135	02.18.19 15.04	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-005	Date Collected:	02.13.19 14.00	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 02.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 02.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.23.19 02.16	
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.23.19 02.16	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-006	Date Collected:	02.13.19 14.40	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3750**	24.8	mg/kg	02.20.19 00.12		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 15.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**23.0**	15.0	mg/kg	02.18.19 15.24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 15.24	U	1
Total TPH	PHC635	**23.0**	15.0	mg/kg	02.18.19 15.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.18.19 15.24	
o-Terphenyl	84-15-1	110	%	70-135	02.18.19 15.24	

Certificate of Analytical Results 614846

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614846-006	Date Collected:	02.13.19 14.40	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 13.30	Basis:	Wet Weight
Seq Number:	3080174				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.23.19 02.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.23.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	02.23.19 02.35	
1,4-Difluorobenzene	540-36-3	112	%	70-130	02.23.19 02.35	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 614846

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3079750 Matrix: Solid Date Prep: 02.19.19
MB Sample Id: 7672095-1-BLK LCS Sample Id: 7672095-1-BKS LCSD Sample Id: 7672095-1-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	235	94	236	94	90-110	0	20	mg/kg	02.19.19 22:11	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3079750 Matrix: Soil Date Prep: 02.19.19
Parent Sample Id: 614846-004 MS Sample Id: 614846-004 S MSD Sample Id: 614846-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1140	248	1350	85	1360	89	90-110	1	20	mg/kg	02.19.19 23:59	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3079750 Matrix: Soil Date Prep: 02.19.19
Parent Sample Id: 614851-005 MS Sample Id: 614851-005 S MSD Sample Id: 614851-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.8	250	268	101	271	102	90-110	1	20	mg/kg	02.19.19 22:30	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079620 Matrix: Solid Date Prep: 02.18.19
MB Sample Id: 7672046-1-BLK LCS Sample Id: 7672046-1-BKS LCSD Sample Id: 7672046-1-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)	<8.00	1000	832	83	969	97	70-135	15	20	mg/kg	02.18.19 12:26	
Diesel Range Organics (DRO)	<8.13	1000	922	92	1080	108	70-135	16	20	mg/kg	02.18.19 12:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		118		127		70-135	%	02.18.19 12:26
o-Terphenyl	79		111		111		70-135	%	02.18.19 12:26

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 614846

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3079620 | Matrix: Soil | Date Prep: 02.18.19
Parent Sample Id: 614846-001 | MS Sample Id: 614846-001 S | MSD Sample Id: 614846-001 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)	<7.99	998	976	98	887	89	70-135	10	20	mg/kg	02.18.19 13:25	
Diesel Range Organics (DRO)	120	998	1150	103	1050	93	70-135	9	20	mg/kg	02.18.19 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		129		70-135	%	02.18.19 13:25
o-Terphenyl	111		107		70-135	%	02.18.19 13:25

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3080174 | Matrix: Solid | Date Prep: 02.22.19
MB Sample Id: 7672387-1-BLK | LCS Sample Id: 7672387-1-BKS | LCSD Sample Id: 7672387-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.116	115	0.119	119	70-130	3	35	mg/kg	02.22.19 22:49	
Toluene	<0.000459	0.101	0.0999	99	0.101	101	70-130	1	35	mg/kg	02.22.19 22:49	
Ethylbenzene	<0.000569	0.101	0.0941	93	0.0950	95	70-130	1	35	mg/kg	02.22.19 22:49	
m,p-Xylenes	<0.00102	0.202	0.188	93	0.190	95	70-130	1	35	mg/kg	02.22.19 22:49	
o-Xylene	<0.000347	0.101	0.0944	93	0.0952	95	70-130	1	35	mg/kg	02.22.19 22:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		110		110		70-130	%	02.22.19 22:49
4-Bromofluorobenzene	95		102		102		70-130	%	02.22.19 22:49

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3080174 | Matrix: Soil | Date Prep: 02.22.19
Parent Sample Id: 614844-001 | MS Sample Id: 614844-001 S | MSD Sample Id: 614844-001 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	0.100	100	0.102	102	70-130	2	35	mg/kg	02.22.19 23:27	
Toluene	<0.000455	0.0998	0.0856	86	0.0868	87	70-130	1	35	mg/kg	02.22.19 23:27	
Ethylbenzene	<0.000564	0.0998	0.0808	81	0.0816	82	70-130	1	35	mg/kg	02.22.19 23:27	
m,p-Xylenes	<0.00101	0.200	0.161	81	0.163	82	70-130	1	35	mg/kg	02.22.19 23:27	
o-Xylene	<0.000344	0.0998	0.0798	80	0.0805	81	70-130	1	35	mg/kg	02.22.19 23:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		70-130	%	02.22.19 23:27
4-Bromofluorobenzene	103		104		70-130	%	02.22.19 23:27

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

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

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

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

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
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 619446

Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	☒
P.O. Number:	2RP-2625	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3/0.2	Thermometer ID	68	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SW05	S	2/13/2019	1035	1	1	X	X	X
SW06	S	2/13/2019	1037	1	1	X	X	X
SW08	S	2/13/2019	1140	1	1	X	X	X
SW07	S	2/13/2019	1142	1	1	X	X	X
FS03	S	2/13/2019	1400	1	1	X	X	X
FS04	S	2/13/2019	1440	1	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
1			2/15/19@12			2/18/19
3				4		0733
5				6		

Revised Date 051418 Rev. 2018.1

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/18/2019 07:33:00 AM

Work Order #: 614846

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
#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)?	**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: 02/18/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/18/2019

Jessica Kramer

Analytical Report 614847

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

26-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

26-FEB-19

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

Reference: XENCO Report No(s): **614847**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 614847. 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. 614847 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 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS05	S	02-14-19 09:10	2	614847-001
FS06	S	02-14-19 09:12	2	614847-002
FS07	S	02-14-19 10:39	2	614847-003
FS08	S	02-14-19 10:39	6	614847-004
SW09	S	02-14-19 11:18	2 - 6	614847-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *614847*

Report Date: *26-FEB-19*
Date Received: *02/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3080077 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3080170 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 614847-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 614847-004, -005.
The Laboratory Control Sample for Toluene, Benzene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 614847

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Feb-18-19 07:33 am
Report Date: 26-FEB-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	614847-001		614847-002		614847-003		614847-004		614847-005	
	Field Id:	FS05		FS06		FS07		FS08		SW09	
	Depth:	2-		2-		2-		6-		2-6	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-14-19 09:10		Feb-14-19 09:12		Feb-14-19 10:39		Feb-14-19 10:39		Feb-14-19 11:18	
BTEX by EPA 8021B	***Extracted:***	Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 15:00		Feb-21-19 15:00	
	Analyzed:	Feb-22-19 10:36		Feb-22-19 10:55		Feb-22-19 11:14		Feb-22-19 14:03		Feb-22-19 14:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 13:50	
	Analyzed:	Feb-20-19 00:18		Feb-20-19 00:39		Feb-20-19 00:46		Feb-20-19 00:52		Feb-20-19 00:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		836	5.00	807	4.99	558	4.97	3630	24.9	1360	25.0
TPH by SW8015 Mod	***Extracted:***	Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00	
	Analyzed:	Feb-18-19 16:03		Feb-18-19 16:23		Feb-18-19 16:42		Feb-18-19 17:40		Feb-18-19 17:59	
	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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	94.8	15.0	23.3	15.0	47.8	15.0	135	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	19.8	15.0
Total TPH		<15.0	15.0	94.8	15.0	23.3	15.0	47.8	15.0	155	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-001	Date Collected:	02.14.19 09.10	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**836**	5.00	mg/kg	02.20.19 00.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 16.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.18.19 16.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 16.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.18.19 16.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.18.19 16.03	
o-Terphenyl	84-15-1	87	%	70-135	02.18.19 16.03	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-001	Date Collected:	02.14.19 09.10	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.21.19 12.30	Basis:	Wet Weight
Seq Number:	3080077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 10.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 10.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	02.22.19 10.36	
4-Bromofluorobenzene	460-00-4	125	%	70-130	02.22.19 10.36	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-002	Date Collected:	02.14.19 09.12	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**807**	4.99	mg/kg	02.20.19 00.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 16.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**94.8**	15.0	mg/kg	02.18.19 16.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 16.23	U	1
Total TPH	PHC635	**94.8**	15.0	mg/kg	02.18.19 16.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.18.19 16.23	
o-Terphenyl	84-15-1	97	%	70-135	02.18.19 16.23	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-002	Date Collected:	02.14.19 09.12	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.21.19 12.30	Basis:	Wet Weight
Seq Number:	3080077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 10.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 10.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.22.19 10.55	
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.22.19 10.55	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-003	Date Collected:	02.14.19 10.39	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**558**	4.97	mg/kg	02.20.19 00.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 16.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**23.3**	15.0	mg/kg	02.18.19 16.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 16.42	U	1
Total TPH	PHC635	**23.3**	15.0	mg/kg	02.18.19 16.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.18.19 16.42	
o-Terphenyl	84-15-1	98	%	70-135	02.18.19 16.42	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-003	Date Collected:	02.14.19 10.39	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.21.19 12.30	Basis:	Wet Weight
Seq Number:	3080077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 11.14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 11.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.22.19 11.14	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 11.14	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-004	Date Collected:	02.14.19 10.39	Sample Depth:	6

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3630**	24.9	mg/kg	02.20.19 00.52		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 17.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**47.8**	15.0	mg/kg	02.18.19 17.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 17.40	U	1
Total TPH	PHC635	**47.8**	15.0	mg/kg	02.18.19 17.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	02.18.19 17.40	
o-Terphenyl	84-15-1	113	%	70-135	02.18.19 17.40	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-004	Date Collected:	02.14.19 10.39	Sample Depth:	6
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.22.19 14.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 14.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.22.19 14.03	
4-Bromofluorobenzene	460-00-4	114	%	70-130	02.22.19 14.03	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-005	Date Collected:	02.14.19 11.18	Sample Depth:	2 - 6

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1360**	25.0	mg/kg	02.20.19 00.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 17.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**135**	15.0	mg/kg	02.18.19 17.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**19.8**	15.0	mg/kg	02.18.19 17.59		1
Total TPH	PHC635	**155**	15.0	mg/kg	02.18.19 17.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.18.19 17.59	
o-Terphenyl	84-15-1	102	%	70-135	02.18.19 17.59	

Certificate of Analytical Results 614847

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614847-005	Date Collected:	02.14.19 11.18	Sample Depth:	2 - 6
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 14.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 14.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	02.22.19 14.51	
1,4-Difluorobenzene	540-36-3	94	%	70-130	02.22.19 14.51	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 614847

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079750 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672095-1-BLK — LCS Sample Id: 7672095-1-BKS — LCSD Sample Id: 7672095-1-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	235	94	236	94	90-110	0	20	mg/kg	02.19.19 22:11	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079750 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614846-004 — MS Sample Id: 614846-004 S — MSD Sample Id: 614846-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1140	248	1350	85	1360	89	90-110	1	20	mg/kg	02.19.19 23:59	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079750 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614851-005 — MS Sample Id: 614851-005 S — MSD Sample Id: 614851-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.8	250	268	101	271	102	90-110	1	20	mg/kg	02.19.19 22:30	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079620 — Matrix: Solid — Date Prep: 02.18.19
MB Sample Id: 7672046-1-BLK — LCS Sample Id: 7672046-1-BKS — LCSD Sample Id: 7672046-1-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)	<8.00	1000	832	83	969	97	70-135	15	20	mg/kg	02.18.19 12:26	
Diesel Range Organics (DRO)	<8.13	1000	922	92	1080	108	70-135	16	20	mg/kg	02.18.19 12:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		118		127		70-135	%	02.18.19 12:26
o-Terphenyl	79		111		111		70-135	%	02.18.19 12:26

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 614847

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3079620 | Matrix: Soil | Date Prep: 02.18.19
Parent Sample Id: 614846-001 | MS Sample Id: 614846-001 S | MSD Sample Id: 614846-001 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)	<7.99	998	976	98	887	89	70-135	10	20	mg/kg	02.18.19 13:25	
Diesel Range Organics (DRO)	120	998	1150	103	1050	93	70-135	9	20	mg/kg	02.18.19 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		129		70-135	%	02.18.19 13:25
o-Terphenyl	111		107		70-135	%	02.18.19 13:25

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3080077 | Matrix: Solid | Date Prep: 02.21.19
MB Sample Id: 7672326-1-BLK | LCS Sample Id: 7672326-1-BKS | LCSD Sample Id: 7672326-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.124	123	0.119	119	70-130	4	35	mg/kg	02.22.19 02:26	
Toluene	<0.000458	0.101	0.108	107	0.102	102	70-130	6	35	mg/kg	02.22.19 02:26	
Ethylbenzene	<0.000568	0.101	0.102	101	0.0959	96	70-130	6	35	mg/kg	02.22.19 02:26	
m,p-Xylenes	<0.00102	0.201	0.199	99	0.189	95	70-130	5	35	mg/kg	02.22.19 02:26	
o-Xylene	<0.000346	0.101	0.101	100	0.0962	97	70-130	5	35	mg/kg	02.22.19 02:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		110		70-130	%	02.22.19 02:26
4-Bromofluorobenzene	93		104		104		70-130	%	02.22.19 02:26

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3080170 | Matrix: Solid | Date Prep: 02.21.19
MB Sample Id: 7672385-1-BLK | LCS Sample Id: 7672385-1-BKS | LCSD Sample Id: 7672385-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.124	125	0.122	122	70-130	2	35	mg/kg	02.22.19 12:10	
Toluene	<0.000453	0.0994	0.105	106	0.103	103	70-130	2	35	mg/kg	02.22.19 12:10	
Ethylbenzene	<0.000561	0.0994	0.0980	99	0.0960	96	70-130	2	35	mg/kg	02.22.19 12:10	
m,p-Xylenes	<0.00101	0.199	0.194	97	0.190	95	70-130	2	35	mg/kg	02.22.19 12:10	
o-Xylene	<0.000342	0.0994	0.0977	98	0.0958	96	70-130	2	35	mg/kg	02.22.19 12:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		111		110		70-130	%	02.22.19 12:10
4-Bromofluorobenzene	95		100		100		70-130	%	02.22.19 12:10

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

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

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

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

Final 1.000

QC Summary 614847

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080077 — Matrix: Soil — Date Prep: 02.21.19
Parent Sample Id: 614845-023 — MS Sample Id: 614845-023 S — MSD Sample Id: 614845-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.108	108	0.112	112	70-130	4	35	mg/kg	02.22.19 03:04	
Toluene	0.000709	0.100	0.0890	88	0.0897	89	70-130	1	35	mg/kg	02.22.19 03:04	
Ethylbenzene	<0.000567	0.100	0.0754	75	0.0701	70	70-130	7	35	mg/kg	02.22.19 03:04	
m,p-Xylenes	0.00564	0.201	0.147	70	0.136	65	70-130	8	35	mg/kg	02.22.19 03:04	X
o-Xylene	0.000948	0.100	0.0774	76	0.0726	72	70-130	6	35	mg/kg	02.22.19 03:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		112		70-130	%	02.22.19 03:04
4-Bromofluorobenzene	112		112		70-130	%	02.22.19 03:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080170 — Matrix: Soil — Date Prep: 02.21.19
Parent Sample Id: 614847-004 — MS Sample Id: 614847-004 S — MSD Sample Id: 614847-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.0715	71	0.0615	62	70-130	15	35	mg/kg	02.22.19 12:48	X
Toluene	<0.000458	0.101	0.0692	69	0.0587	59	70-130	16	35	mg/kg	02.22.19 12:48	X
Ethylbenzene	<0.000568	0.101	0.0871	86	0.0771	77	70-130	12	35	mg/kg	02.22.19 12:48	
m,p-Xylenes	<0.00102	0.201	0.153	76	0.145	73	70-130	5	35	mg/kg	02.22.19 12:48	
o-Xylene	<0.000346	0.101	0.0846	84	0.0770	77	70-130	9	35	mg/kg	02.22.19 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	02.22.19 12:48
4-Bromofluorobenzene	105		107		70-130	%	02.22.19 12:48

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

Chain of Custody

Work Order No: 614847

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	X
P.O. Number:	2RP-2625	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3/0.2	Thermometer ID	IR
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS05	S	2/14/2019	0910	2	1	X	X	X
FS06	S	2/14/2019	0912	2	1	X	X	X
FS07	S	2/14/2019	1039	2	1	X	X	X
FS08	S	2/14/2019	1039	6	1	X	X	X
SW09	S	2/14/2019	1118	2 - 6	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
1			2/15/19 1152			2/18/19 0733
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/18/2019 07:33:00 AM

Work Order #: 614847

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
#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)?	**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: 02/18/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/18/2019

Jessica Kramer

Analytical Report 614848

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

26-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

26-FEB-19

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

Reference: XENCO Report No(s): **614848**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 614848. 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. 614848 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 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	02-12-19 14:00	1	614848-001
SW02	S	02-12-19 14:10	1	614848-002
SW03	S	02-12-19 14:15	1	614848-003
SW04	S	02-12-19 14:03	1	614848-004
FS01	S	02-12-19 14:20	1	614848-005
FS02	S	02-12-19 14:25	1	614848-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *614848*

Report Date: *26-FEB-19*
Date Received: *02/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3080170 BTEX by EPA 8021B

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

Certificate of Analysis Summary 614848

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Feb-18-19 07:33 am
Report Date: 26-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614848-001		614848-002		614848-003		614848-004		614848-005		614848-006	
	Field Id:	SW01		SW02		SW03		SW04		FS01		FS02	
	Depth:	1-		1-		1-		1-		1-		1-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-12-19 14:00		Feb-12-19 14:10		Feb-12-19 14:15		Feb-12-19 14:03		Feb-12-19 14:20		Feb-12-19 14:25	
BTEX by EPA 8021B	***Extracted:***	Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00	
	Analyzed:	Feb-22-19 15:34		Feb-22-19 15:53		Feb-22-19 16:12		Feb-22-19 17:47		Feb-22-19 16:31		Feb-22-19 16:50	
	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	<0.00201	0.00201	<0.00199	0.00199	0.0830	0.0101	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.159	0.0101	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.0526	0.0101	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	0.111	0.0202	<0.00399	0.00399	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.378	0.0101	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.489	0.0101	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.784	0.0101	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:50		Feb-19-19 13:50		Feb-19-19 09:30		Feb-19-19 09:30		Feb-19-19 09:30		Feb-19-19 09:30	
	Analyzed:	Feb-20-19 01:04		Feb-20-19 01:10		Feb-19-19 12:38		Feb-19-19 12:44		Feb-19-19 12:50		Feb-19-19 12:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1030	4.99	563	4.99	971	24.9	3450	25.1	551	4.99	610	4.95
TPH by SW8015 Mod	***Extracted:***	Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00		Feb-18-19 10:00	
	Analyzed:	Feb-18-19 18:18		Feb-18-19 18:37		Feb-18-19 18:57		Feb-18-19 19:17		Feb-18-19 19:36		Feb-18-19 19:56	
	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	214	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		44.1	15.0	30.0	15.0	88.8	15.0	1850	15.0	63.2	15.0	24.6	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	20.4	15.0	360	15.0	<15.0	15.0	<14.9	14.9
Total TPH		44.1	15.0	30.0	15.0	109	15.0	2420	15.0	63.2	15.0	24.6	14.9

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-001	Date Collected:	02.12.19 14.00	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1030**	4.99	mg/kg	02.20.19 01.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 18.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**44.1**	15.0	mg/kg	02.18.19 18.18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 18.18	U	1
Total TPH	PHC635	**44.1**	15.0	mg/kg	02.18.19 18.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	02.18.19 18.18	
o-Terphenyl	84-15-1	111	%	70-135	02.18.19 18.18	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-001	Date Collected:	02.12.19 14.00	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.22.19 15.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 15.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	02.22.19 15.34	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.22.19 15.34	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-002	Date Collected:	02.12.19 14.10	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.50	Basis:	Wet Weight
Seq Number:	3079750				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**563**	4.99	mg/kg	02.20.19 01.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 18.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**30.0**	15.0	mg/kg	02.18.19 18.37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 18.37	U	1
Total TPH	PHC635	**30.0**	15.0	mg/kg	02.18.19 18.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	02.18.19 18.37	
o-Terphenyl	84-15-1	108	%	70-135	02.18.19 18.37	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-002	Date Collected:	02.12.19 14.10	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 15.53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 15.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 15.53	
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.22.19 15.53	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-003	Date Collected:	02.12.19 14.15	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.30	Basis:	Wet Weight
Seq Number:	3079654				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**971**	24.9	mg/kg	02.19.19 12.38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 18.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**88.8**	15.0	mg/kg	02.18.19 18.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**20.4**	15.0	mg/kg	02.18.19 18.57		1
Total TPH	PHC635	**109**	15.0	mg/kg	02.18.19 18.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	02.18.19 18.57	
o-Terphenyl	84-15-1	109	%	70-135	02.18.19 18.57	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-003	Date Collected:	02.12.19 14.15	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 16.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 16.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.22.19 16.12	
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.22.19 16.12	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-004	Date Collected:	02.12.19 14.03	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.30	Basis:	Wet Weight
Seq Number:	3079654				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3450**	25.1	mg/kg	02.19.19 12.44		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**214**	15.0	mg/kg	02.18.19 19.17		1
Diesel Range Organics (DRO)	C10C28DRO	**1850**	15.0	mg/kg	02.18.19 19.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**360**	15.0	mg/kg	02.18.19 19.17		1
Total TPH	PHC635	**2420**	15.0	mg/kg	02.18.19 19.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	02.18.19 19.17	
o-Terphenyl	84-15-1	127	%	70-135	02.18.19 19.17	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-004	Date Collected:	02.12.19 14.03	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0830**	0.0101	mg/kg	02.22.19 17.47		5
Toluene	108-88-3	**0.159**	0.0101	mg/kg	02.22.19 17.47		5
Ethylbenzene	100-41-4	**0.0526**	0.0101	mg/kg	02.22.19 17.47		5
m,p-Xylenes	179601-23-1	**0.111**	0.0202	mg/kg	02.22.19 17.47		5
o-Xylene	95-47-6	**0.378**	0.0101	mg/kg	02.22.19 17.47		5
Total Xylenes	1330-20-7	**0.489**	0.0101	mg/kg	02.22.19 17.47		5
Total BTEX		**0.784**	0.0101	mg/kg	02.22.19 17.47		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	02.22.19 17.47	
4-Bromofluorobenzene	460-00-4	70	%	70-130	02.22.19 17.47	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-005	Date Collected:	02.12.19 14.20	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.30	Basis:	Wet Weight
Seq Number:	3079654				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**551**	4.99	mg/kg	02.19.19 12.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 19.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**63.2**	15.0	mg/kg	02.18.19 19.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 19.36	U	1
Total TPH	PHC635	**63.2**	15.0	mg/kg	02.18.19 19.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	02.18.19 19.36	
o-Terphenyl	84-15-1	111	%	70-135	02.18.19 19.36	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-005	Date Collected:	02.12.19 14.20	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.22.19 16.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.22.19 16.31	
4-Bromofluorobenzene	460-00-4	122	%	70-130	02.22.19 16.31	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-006	Date Collected:	02.12.19 14.25	Sample Depth:	1

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.30	Basis:	Wet Weight
Seq Number:	3079654				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**610**	4.95	mg/kg	02.19.19 12.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.18.19 19.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**24.6**	14.9	mg/kg	02.18.19 19.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.18.19 19.56	U	1
Total TPH	PHC635	**24.6**	14.9	mg/kg	02.18.19 19.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.18.19 19.56	
o-Terphenyl	84-15-1	93	%	70-135	02.18.19 19.56	

Certificate of Analytical Results 614848

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614848-006	Date Collected:	02.12.19 14.25	Sample Depth:	1
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.22.19 16.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 16.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 16.50	
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.22.19 16.50	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 614848

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672053-1-BLK — LCS Sample Id: 7672053-1-BKS — LCSD Sample Id: 7672053-1-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	234	94	253	101	90-110	8	20	mg/kg	02.19.19 10:04	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079750 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672095-1-BLK — LCS Sample Id: 7672095-1-BKS — LCSD Sample Id: 7672095-1-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	235	94	236	94	90-110	0	20	mg/kg	02.19.19 22:11	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614870-008 — MS Sample Id: 614870-008 S — MSD Sample Id: 614870-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	164	250	438	110	417	101	90-110	5	20	mg/kg	02.19.19 13:55	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614952-002 — MS Sample Id: 614952-002 S — MSD Sample Id: 614952-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2160	252	3320	460	3440	508	90-110	4	20	mg/kg	02.19.19 10:22	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079750 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614846-004 — MS Sample Id: 614846-004 S — MSD Sample Id: 614846-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1140	248	1350	85	1360	89	90-110	1	20	mg/kg	02.19.19 23:59	X

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 614848

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3079750 Matrix: Soil Date Prep: 02.19.19
Parent Sample Id: 614851-005 MS Sample Id: 614851-005 S MSD Sample Id: 614851-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.8	250	268	101	271	102	90-110	1	20	mg/kg	02.19.19 22:30	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079620 Matrix: Solid Date Prep: 02.18.19
MB Sample Id: 7672046-1-BLK LCS Sample Id: 7672046-1-BKS LCSD Sample Id: 7672046-1-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)	<8.00	1000	832	83	969	97	70-135	15	20	mg/kg	02.18.19 12:26	
Diesel Range Organics (DRO)	<8.13	1000	922	92	1080	108	70-135	16	20	mg/kg	02.18.19 12:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		118		127		70-135	%	02.18.19 12:26
o-Terphenyl	79		111		111		70-135	%	02.18.19 12:26

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079620 Matrix: Soil Date Prep: 02.18.19
Parent Sample Id: 614846-001 MS Sample Id: 614846-001 S MSD Sample Id: 614846-001 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)	<7.99	998	976	98	887	89	70-135	10	20	mg/kg	02.18.19 13:25	
Diesel Range Organics (DRO)	120	998	1150	103	1050	93	70-135	9	20	mg/kg	02.18.19 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		129		70-135	%	02.18.19 13:25
o-Terphenyl	111		107		70-135	%	02.18.19 13:25

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 614848

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3080170 Matrix: Solid Date Prep: 02.21.19
MB Sample Id: 7672385-1-BLK LCS Sample Id: 7672385-1-BKS LCSD Sample Id: 7672385-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.124	125	0.122	122	70-130	2	35	mg/kg	02.22.19 12:10	
Toluene	<0.000453	0.0994	0.105	106	0.103	103	70-130	2	35	mg/kg	02.22.19 12:10	
Ethylbenzene	<0.000561	0.0994	0.0980	99	0.0960	96	70-130	2	35	mg/kg	02.22.19 12:10	
m,p-Xylenes	<0.00101	0.199	0.194	97	0.190	95	70-130	2	35	mg/kg	02.22.19 12:10	
o-Xylene	<0.000342	0.0994	0.0977	98	0.0958	96	70-130	2	35	mg/kg	02.22.19 12:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		111		110		70-130	%	02.22.19 12:10
4-Bromofluorobenzene	95		100		100		70-130	%	02.22.19 12:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3080170 Matrix: Soil Date Prep: 02.21.19
Parent Sample Id: 614847-004 MS Sample Id: 614847-004 S MSD Sample Id: 614847-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.0715	71	0.0615	62	70-130	15	35	mg/kg	02.22.19 12:48	X
Toluene	<0.000458	0.101	0.0692	69	0.0587	59	70-130	16	35	mg/kg	02.22.19 12:48	X
Ethylbenzene	<0.000568	0.101	0.0871	86	0.0771	77	70-130	12	35	mg/kg	02.22.19 12:48	
m,p-Xylenes	<0.00102	0.201	0.153	76	0.145	73	70-130	5	35	mg/kg	02.22.19 12:48	
o-Xylene	<0.000346	0.101	0.0846	84	0.0770	77	70-130	9	35	mg/kg	02.22.19 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	02.22.19 12:48
4-Bromofluorobenzene	105		107		70-130	%	02.22.19 12:48

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

Chain of Custody

Work Order No: 1e149148

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	☐
P.O. Number:	2RP-2625	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 / 0.4	Thermometer ID	T8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SW01	S	2/12/2019	1400	1	1	X	X	X
SW02	S	2/12/2019	1410	1	1	X	X	X
SW03	S	2/12/2019	1415	1	1	X	X	X
SW04	S	2/12/2019	1403	1	1	X	X	X
FS01	S	2/12/2019	1420	1	1	X	X	X
FS02	S	2/12/2019	1425	1	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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	Taylor Rhy	2/15/19 0733	2 Taylor Rhy	Paul	2/18/19 0733
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/18/2019 07:33:00 AM

Work Order #: 614848

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
#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)?	**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: 02/18/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/18/2019

Jessica Kramer

Analytical Report 614849

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

26-FEB-19

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

26-FEB-19

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

Reference: XENCO Report No(s): **614849**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 614849. 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. 614849 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 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS23	S	02-11-19 09:00	2	614849-001
SS23A	S	02-11-19 09:20	4	614849-002
SS12A	S	02-11-19 10:05	2	614849-003
SS12B	S	02-11-19 10:05	4	614849-004
SS25	S	02-11-19 11:10	2	614849-005
SS25A	S	02-11-19 11:15	4	614849-006
SS27	S	02-11-19 12:25	2	614849-007
SS27A	S	02-11-19 12:27	4	614849-008
SS10A	S	02-11-19 13:31	2	614849-009
SS10B	S	02-11-19 13:35	4	614849-010
SS24	S	02-11-19 15:30	2	614849-011
SS24A	S	02-11-19 15:35	4	614849-012

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *614849*

Report Date: *26-FEB-19*
Date Received: *02/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3080170 BTEX by EPA 8021B

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

Certificate of Analysis Summary 614849

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Feb-18-19 07:33 am
Report Date: 26-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614849-001		614849-002		614849-003		614849-004		614849-005		614849-006	
	Field Id:	SS23		SS23A		SS12A		SS12B		SS25		SS25A	
	Depth:	2-		4-		2-		4-		2-		4-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-11-19 09:00		Feb-11-19 09:20		Feb-11-19 10:05		Feb-11-19 10:05		Feb-11-19 11:10		Feb-11-19 11:15	
BTEX by EPA 8021B	*Extracted:*	Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00	
	Analyzed:	Feb-22-19 17:09		Feb-22-19 17:28		Feb-22-19 19:02		Feb-22-19 19:21		Feb-22-19 19:40		Feb-22-19 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	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	*Extracted:*	Feb-19-19 09:30		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50	
	Analyzed:	Feb-19-19 13:03		Feb-19-19 14:48		Feb-19-19 15:17		Feb-19-19 15:57		Feb-19-19 16:03		Feb-19-19 16:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		265	4.95	236	5.00	157	5.00	217	4.99	17.1	4.99	18.5	4.97
TPH by SW8015 Mod	*Extracted:*	Feb-20-19 13:00		Feb-20-19 13:00		Feb-20-19 13:00		Feb-20-19 13:00		Feb-20-19 13:00		Feb-20-19 13:00	
	Analyzed:	Feb-20-19 15:39		Feb-20-19 16:38		Feb-20-19 16:58		Feb-20-19 17:18		Feb-20-19 17:37		Feb-20-19 17:57	
	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)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 614849

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Feb-18-19 07:33 am
Report Date: 26-FEB-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	614849-007		614849-008		614849-009		614849-010		614849-011		614849-012	
	Field Id:	SS27		SS27A		SS10A		SS10B		SS24		SS24A	
	Depth:	2-		4-		2-		4-		2-		4-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-11-19 12:25		Feb-11-19 12:27		Feb-11-19 13:31		Feb-11-19 13:35		Feb-11-19 15:30		Feb-11-19 15:35	
BTEX by EPA 8021B	***Extracted:***	Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00		Feb-21-19 15:00	
	Analyzed:	Feb-22-19 20:18		Feb-22-19 20:37		Feb-22-19 20:56		Feb-22-19 21:15		Feb-22-19 21:34		Feb-22-19 21:53	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402	<0.00399	0.00399	<0.00401	0.00401	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 09:50	
	Analyzed:	Feb-19-19 17:14		Feb-19-19 17:21		Feb-19-19 17:27		Feb-19-19 16:16		Feb-19-19 16:22		Feb-19-19 16:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		25.7	4.99	23.9	4.95	202	4.98	143	4.98	564	5.00	1080	24.8
TPH by SW8015 Mod	***Extracted:***	Feb-20-19 13:00		Feb-20-19 13:00		Feb-18-19 15:00		Feb-18-19 15:00		Feb-18-19 10:00		Feb-18-19 10:00	
	Analyzed:	Feb-20-19 18:17		Feb-20-19 18:37		Feb-19-19 05:31		Feb-19-19 05:50		Feb-18-19 20:15		Feb-18-19 20:35	
	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	<14.9	14.9	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	38.2	14.9	80.1	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	38.2	14.9	80.1	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS23**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-001	Date Collected:	02.11.19 09.00	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.30	Basis:	Wet Weight
Seq Number:	3079654				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**265**	4.95	mg/kg	02.19.19 13.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 15.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 15.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 15.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 15.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.20.19 15.39	
o-Terphenyl	84-15-1	93	%	70-135	02.20.19 15.39	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS23**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-001	Date Collected:	02.11.19 09.00	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 17.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 17.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.22.19 17.09	
4-Bromofluorobenzene	460-00-4	118	%	70-130	02.22.19 17.09	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS23A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-002	Date Collected:	02.11.19 09.20	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**236**	5.00	mg/kg	02.19.19 14.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 16.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 16.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 16.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 16.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.20.19 16.38	
o-Terphenyl	84-15-1	96	%	70-135	02.20.19 16.38	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS23A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-002	Date Collected:	02.11.19 09.20	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.22.19 17.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 17.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	02.22.19 17.28	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 17.28	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS12A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-003	Date Collected:	02.11.19 10.05	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**157**	5.00	mg/kg	02.19.19 15.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 16.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 16.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 16.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 16.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.20.19 16.58	
o-Terphenyl	84-15-1	90	%	70-135	02.20.19 16.58	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS12A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-003	Date Collected:	02.11.19 10.05	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 19.02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 19.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	02.22.19 19.02	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.22.19 19.02	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS12B**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-004	Date Collected:	02.11.19 10.05	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**217**	4.99	mg/kg	02.19.19 15.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 17.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 17.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 17.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 17.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.20.19 17.18	
o-Terphenyl	84-15-1	98	%	70-135	02.20.19 17.18	

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LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS12B**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-004	Date Collected:	02.11.19 10.05	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 19.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 19.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.22.19 19.21	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 19.21	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS25**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-005	Date Collected:	02.11.19 11.10	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	4.99	mg/kg	02.19.19 16.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 17.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 17.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 17.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 17.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.20.19 17.37	
o-Terphenyl	84-15-1	87	%	70-135	02.20.19 17.37	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS25**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-005	Date Collected:	02.11.19 11.10	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.22.19 19.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 19.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 19.40	
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.22.19 19.40	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS25A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-006	Date Collected:	02.11.19 11.15	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.5**	4.97	mg/kg	02.19.19 16.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 17.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 17.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 17.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 17.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.20.19 17.57	
o-Terphenyl	84-15-1	92	%	70-135	02.20.19 17.57	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS25A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-006	Date Collected:	02.11.19 11.15	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.22.19 19.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 19.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.22.19 19.59	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 19.59	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS27**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-007	Date Collected:	02.11.19 12.25	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.7**	4.99	mg/kg	02.19.19 17.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 18.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 18.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 18.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 18.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.20.19 18.17	
o-Terphenyl	84-15-1	88	%	70-135	02.20.19 18.17	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS27**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-007	Date Collected:	02.11.19 12.25	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 20.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 20.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 20.18	
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.22.19 20.18	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS27A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-008	Date Collected:	02.11.19 12.27	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.9**	4.95	mg/kg	02.19.19 17.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.20.19 13.00	Basis:	Wet Weight
Seq Number:	3079924				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.20.19 18.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 18.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 18.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 18.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.20.19 18.37	
o-Terphenyl	84-15-1	89	%	70-135	02.20.19 18.37	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS27A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-008	Date Collected:	02.11.19 12.27	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 20.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 20.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.22.19 20.37	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 20.37	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS10A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-009	Date Collected:	02.11.19 13.31	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**202**	4.98	mg/kg	02.19.19 17.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 15.00	Basis:	Wet Weight
Seq Number:	3079622				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 05.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 05.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 05.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 05.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	02.19.19 05.31	
o-Terphenyl	84-15-1	86	%	70-135	02.19.19 05.31	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS10A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-009	Date Collected:	02.11.19 13.31	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.22.19 20.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.22.19 20.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.22.19 20.56	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.22.19 20.56	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS10B**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-010	Date Collected:	02.11.19 13.35	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**143**	4.98	mg/kg	02.19.19 16.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 15.00	Basis:	Wet Weight
Seq Number:	3079622				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.19.19 05.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.19.19 05.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.19.19 05.50	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.19.19 05.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 05.50	
o-Terphenyl	84-15-1	89	%	70-135	02.19.19 05.50	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS10B**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-010	Date Collected:	02.11.19 13.35	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.22.19 21.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 21.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	02.22.19 21.15	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.22.19 21.15	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS24**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-011	Date Collected:	02.11.19 15.30	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**564**	5.00	mg/kg	02.19.19 16.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.18.19 20.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**38.2**	14.9	mg/kg	02.18.19 20.15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.18.19 20.15	U	1
Total TPH	PHC635	**38.2**	14.9	mg/kg	02.18.19 20.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.18.19 20.15	
o-Terphenyl	84-15-1	95	%	70-135	02.18.19 20.15	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS24**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-011	Date Collected:	02.11.19 15.30	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.22.19 21.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 21.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 21.34	
4-Bromofluorobenzene	460-00-4	119	%	70-130	02.22.19 21.34	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS24A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-012	Date Collected:	02.11.19 15.35	Sample Depth:	4

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 09.50	Basis:	Wet Weight
Seq Number:	3079738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1080**	24.8	mg/kg	02.19.19 16.47		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.18.19 10.00	Basis:	Wet Weight
Seq Number:	3079620				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.18.19 20.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**80.1**	15.0	mg/kg	02.18.19 20.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.18.19 20.35	U	1
Total TPH	PHC635	**80.1**	15.0	mg/kg	02.18.19 20.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.18.19 20.35	
o-Terphenyl	84-15-1	96	%	70-135	02.18.19 20.35	

Certificate of Analytical Results 614849

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SS24A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614849-012	Date Collected:	02.11.19 15.35	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.21.19 15.00	Basis:	Wet Weight
Seq Number:	3080170				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 21.53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 21.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	02.22.19 21.53	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 21.53	

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 614849

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672053-1-BLK — LCS Sample Id: 7672053-1-BKS — LCSD Sample Id: 7672053-1-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	234	94	253	101	90-110	8	20	mg/kg	02.19.19 10:04	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079738 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672054-1-BLK — LCS Sample Id: 7672054-1-BKS — LCSD Sample Id: 7672054-1-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	234	94	253	101	90-110	8	20	mg/kg	02.19.19 10:04	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614870-008 — MS Sample Id: 614870-008 S — MSD Sample Id: 614870-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	164	250	438	110	417	101	90-110	5	20	mg/kg	02.19.19 13:55	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079654 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614952-002 — MS Sample Id: 614952-002 S — MSD Sample Id: 614952-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2160	252	3320	460	3440	508	90-110	4	20	mg/kg	02.19.19 10:22	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079738 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614844-001 — MS Sample Id: 614844-001 S — MSD Sample Id: 614844-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	29.4	250	285	102	297	107	90-110	4	20	mg/kg	02.19.19 16:34	

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

QC Summary 614849

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3079738 Matrix: Soil Date Prep: 02.19.19
Parent Sample Id: 614849-002 MS Sample Id: 614849-002 S MSD Sample Id: 614849-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	236	250	477	96	496	104	90-110	4	20	mg/kg	02.19.19 14:54	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079620 Matrix: Solid Date Prep: 02.18.19
MB Sample Id: 7672046-1-BLK LCS Sample Id: 7672046-1-BKS LCSD Sample Id: 7672046-1-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)	<8.00	1000	832	83	969	97	70-135	15	20	mg/kg	02.18.19 12:26	
Diesel Range Organics (DRO)	<8.13	1000	922	92	1080	108	70-135	16	20	mg/kg	02.18.19 12:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		118		127		70-135	%	02.18.19 12:26
o-Terphenyl	79		111		111		70-135	%	02.18.19 12:26

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079622 Matrix: Solid Date Prep: 02.18.19
MB Sample Id: 7672047-1-BLK LCS Sample Id: 7672047-1-BKS LCSD Sample Id: 7672047-1-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)	<8.00	1000	1020	102	872	87	70-135	16	20	mg/kg	02.18.19 21:34	
Diesel Range Organics (DRO)	<8.13	1000	1170	117	979	98	70-135	18	20	mg/kg	02.18.19 21:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	79		125		122		70-135	%	02.18.19 21:34
o-Terphenyl	79		118		105		70-135	%	02.18.19 21:34

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3079924 Matrix: Solid Date Prep: 02.20.19
MB Sample Id: 7672196-1-BLK LCS Sample Id: 7672196-1-BKS LCSD Sample Id: 7672196-1-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)	<8.00	1000	942	94	982	98	70-135	4	20	mg/kg	02.20.19 15:00	
Diesel Range Organics (DRO)	<8.13	1000	952	95	983	98	70-135	3	20	mg/kg	02.20.19 15:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		125		129		70-135	%	02.20.19 15:00
o-Terphenyl	101		121		124		70-135	%	02.20.19 15:00

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 614849

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079620 — Matrix: Soil — Date Prep: 02.18.19
Parent Sample Id: 614846-001 — MS Sample Id: 614846-001 S — MSD Sample Id: 614846-001 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)	<7.99	998	976	98	887	89	70-135	10	20	mg/kg	02.18.19 13:25	
Diesel Range Organics (DRO)	120	998	1150	103	1050	93	70-135	9	20	mg/kg	02.18.19 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		129		70-135	%	02.18.19 13:25
o-Terphenyl	111		107		70-135	%	02.18.19 13:25

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079622 — Matrix: Soil — Date Prep: 02.18.19
Parent Sample Id: 614869-001 — MS Sample Id: 614869-001 S — MSD Sample Id: 614869-001 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)	<7.98	997	866	87	944	95	70-135	9	20	mg/kg	02.18.19 22:34	
Diesel Range Organics (DRO)	39.3	997	945	91	972	93	70-135	3	20	mg/kg	02.18.19 22:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		116		70-135	%	02.18.19 22:34
o-Terphenyl	101		102		70-135	%	02.18.19 22:34

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079924 — Matrix: Soil — Date Prep: 02.20.19
Parent Sample Id: 614849-001 — MS Sample Id: 614849-001 S — MSD Sample Id: 614849-001 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)	<8.00	1000	920	92	936	94	70-135	2	20	mg/kg	02.20.19 15:59	
Diesel Range Organics (DRO)	<8.13	1000	946	95	963	96	70-135	2	20	mg/kg	02.20.19 15:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		125		70-135	%	02.20.19 15:59
o-Terphenyl	122		117		70-135	%	02.20.19 15:59

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 614849

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3080170 Matrix: Solid Date Prep: 02.21.19
MB Sample Id: 7672385-1-BLK LCS Sample Id: 7672385-1-BKS LCSD Sample Id: 7672385-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.124	125	0.122	122	70-130	2	35	mg/kg	02.22.19 12:10	
Toluene	<0.000453	0.0994	0.105	106	0.103	103	70-130	2	35	mg/kg	02.22.19 12:10	
Ethylbenzene	<0.000561	0.0994	0.0980	99	0.0960	96	70-130	2	35	mg/kg	02.22.19 12:10	
m,p-Xylenes	<0.00101	0.199	0.194	97	0.190	95	70-130	2	35	mg/kg	02.22.19 12:10	
o-Xylene	<0.000342	0.0994	0.0977	98	0.0958	96	70-130	2	35	mg/kg	02.22.19 12:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		111		110		70-130	%	02.22.19 12:10
4-Bromofluorobenzene	95		100		100		70-130	%	02.22.19 12:10

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3080170 Matrix: Soil Date Prep: 02.21.19
Parent Sample Id: 614847-004 MS Sample Id: 614847-004 S MSD Sample Id: 614847-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.0715	71	0.0615	62	70-130	15	35	mg/kg	02.22.19 12:48	X
Toluene	<0.000458	0.101	0.0692	69	0.0587	59	70-130	16	35	mg/kg	02.22.19 12:48	X
Ethylbenzene	<0.000568	0.101	0.0871	86	0.0771	77	70-130	12	35	mg/kg	02.22.19 12:48	
m,p-Xylenes	<0.00102	0.201	0.153	76	0.145	73	70-130	5	35	mg/kg	02.22.19 12:48	
o-Xylene	<0.000346	0.101	0.0846	84	0.0770	77	70-130	9	35	mg/kg	02.22.19 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		111		70-130	%	02.22.19 12:48
4-Bromofluorobenzene	105		107		70-130	%	02.22.19 12:48

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

Chain of Custody

Work Order No: 1614849

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

Page 1 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	☒
P.O. Number:	2RP-2625	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3 0.2	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS23	S	2/11/2019	900	2	1	X	X	X
SS23A	S	2/11/2019	920	4	1	X	X	X
SS12A	S	2/11/2019	1005	2	1	X	X	X
SS12B	S	2/11/2019	1015	4	1	X	X	X
SS25	S	2/11/2019	1110	2	1	X	X	X
SS25A	S	2/11/2019	1115	4	1	X	X	X
SS27	S	2/11/2019	1225	2	1	X	X	X
SS27A	S	2/11/2019	1227	4	1	X	X	X
SS10A	S	2/11/2019	1331	2	1	X	X	X
SS10B	S	2/11/2019	1335	4	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2/15/19@1232	2		2/18/19 0733
3						
5				6		

Revised Date 051418 Rev. 2018.1

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
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: _____

Page 2 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@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:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	☒
P.O. Number:	2RP-2625	Rush:	✓
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3 / 0.7	Thermometer ID:	8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS24	S	2/11/2019	1530	2	1	X	X	X
SS24A	S	2/11/2019	1535	4	1	X	X	X
	S							
	S							
	S							
	S							
	S							
	S							
	S							
	S							

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
1			2/15/19 @ 1232	2		2/18/19 0733
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/18/2019 07:33:00 AM

Work Order #: 614849

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
#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)?	**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: 02/18/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/18/2019

Jessica Kramer

Analytical Report 615917

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

05-MAR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

05-MAR-19

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

Reference: XENCO Report No(s): **615917**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 615917. 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. 615917 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 615917

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	02-19-19 11:35	2	615917-001
SW01	S	02-19-19 11:38	0 - 2	615917-002

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *615917*

Report Date: *05-MAR-19*
Date Received: *02/27/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081082 BTEX by EPA 8021B

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

Certificate of Analysis Summary 615917

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Wed Feb-27-19 11:25 am
Report Date: 05-MAR-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	615917-001		615917-002					
	Field Id:	FS01		SW01					
	Depth:	2-		0-2					
	Matrix:	SOIL		SOIL					
	Sampled:	Feb-19-19 11:35		Feb-19-19 11:38					
BTEX by EPA 8021B	***Extracted:***	Mar-04-19 15:00		Mar-04-19 15:00					
	Analyzed:	Mar-05-19 03:52		Mar-05-19 02:36					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00202	0.00202				
Toluene		<0.00200	0.00200	0.00257	0.00202				
Ethylbenzene		0.00261	0.00200	<0.00202	0.00202				
m,p-Xylenes		0.00402	0.00400	<0.00403	0.00403				
o-Xylene		0.00334	0.00200	<0.00202	0.00202				
Total Xylenes		0.00736	0.00200	<0.00202	0.00202				
Total BTEX		0.00997	0.00200	0.00257	0.00202				
Inorganic Anions by EPA 300	***Extracted:***	Mar-02-19 09:40		Mar-02-19 09:40					
	Analyzed:	Mar-02-19 19:32		Mar-02-19 19:52					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<5.00	5.00	<4.99	4.99				
TPH by SW8015 Mod	***Extracted:***	Mar-01-19 09:00		Mar-01-19 09:00					
	Analyzed:	Mar-01-19 12:55		Mar-01-19 13:53					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	39.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	39.0	15.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 615917

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.27.19 11.25
Lab Sample Id:	615917-001	Date Collected:	02.19.19 11.35	Sample Depth:	2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.02.19 09.40	Basis:	Wet Weight
Seq Number:	3081021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.02.19 19.32	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.01.19 09.00	Basis:	Wet Weight
Seq Number:	3080899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.01.19 12.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.01.19 12.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.01.19 12.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.01.19 12.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.01.19 12.55	
o-Terphenyl	84-15-1	94	%	70-135	03.01.19 12.55	

Certificate of Analytical Results 615917

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	02.27.19 11.25
Lab Sample Id:	615917-001	Date Collected:	02.19.19 11.35	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.05.19 03.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.05.19 03.52	U	1
Ethylbenzene	100-41-4	**0.00261**	0.00200	mg/kg	03.05.19 03.52		1
m,p-Xylenes	179601-23-1	**0.00402**	0.00400	mg/kg	03.05.19 03.52		1
o-Xylene	95-47-6	**0.00334**	0.00200	mg/kg	03.05.19 03.52		1
Total Xylenes	1330-20-7	**0.00736**	0.00200	mg/kg	03.05.19 03.52		1
Total BTEX		**0.00997**	0.00200	mg/kg	03.05.19 03.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	03.05.19 03.52	
1,4-Difluorobenzene	540-36-3	120	%	70-130	03.05.19 03.52	

Certificate of Analytical Results 615917

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.27.19 11.25
Lab Sample Id:	615917-002	Date Collected:	02.19.19 11.38	Sample Depth:	0 - 2

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.02.19 09.40	Basis:	Wet Weight
Seq Number:	3081021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.02.19 19.52	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.01.19 09.00	Basis:	Wet Weight
Seq Number:	3080899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.01.19 13.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**39.0**	15.0	mg/kg	03.01.19 13.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.01.19 13.53	U	1
Total TPH	PHC635	**39.0**	15.0	mg/kg	03.01.19 13.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.01.19 13.53	
o-Terphenyl	84-15-1	99	%	70-135	03.01.19 13.53	

Certificate of Analytical Results 615917

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	02.27.19 11.25
Lab Sample Id:	615917-002	Date Collected:	02.19.19 11.38	Sample Depth:	0 - 2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.05.19 02.36	U	1
Toluene	108-88-3	**0.00257**	0.00202	mg/kg	03.05.19 02.36		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.05.19 02.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.05.19 02.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.05.19 02.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.05.19 02.36	U	1
Total BTEX		**0.00257**	0.00202	mg/kg	03.05.19 02.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.05.19 02.36	
1,4-Difluorobenzene	540-36-3	119	%	70-130	03.05.19 02.36	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 615917

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Solid — Date Prep: 03.02.19
MB Sample Id: 7672865-1-BLK — LCS Sample Id: 7672865-1-BKS — LCSD Sample Id: 7672865-1-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	248	99	250	100	90-110	1	20	mg/kg	03.02.19 14:17	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Soil — Date Prep: 03.02.19
Parent Sample Id: 615918-006 — MS Sample Id: 615918-006 S — MSD Sample Id: 615918-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.9	250	277	104	277	104	90-110	0	20	mg/kg	03.04.19 11:14	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Soil — Date Prep: 03.02.19
Parent Sample Id: 615920-009 — MS Sample Id: 615920-009 S — MSD Sample Id: 615920-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	115	250	393	111	382	107	90-110	3	20	mg/kg	03.02.19 17:11	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3080899 — Matrix: Solid — Date Prep: 03.01.19
MB Sample Id: 7672837-1-BLK — LCS Sample Id: 7672837-1-BKS — LCSD Sample Id: 7672837-1-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)	<8.00	1000	899	90	1020	102	70-135	13	20	mg/kg	03.01.19 12:17	
Diesel Range Organics (DRO)	<8.13	1000	937	94	1090	109	70-135	15	20	mg/kg	03.01.19 12:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		122		128		70-135	%	03.01.19 12:17
o-Terphenyl	117		101		118		70-135	%	03.01.19 12:17

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 615917

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3080899 | Matrix: Soil | Date Prep: 03.01.19
Parent Sample Id: 615917-001 | MS Sample Id: 615917-001 S | MSD Sample Id: 615917-001 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)	<8.00	1000	994	99	921	92	70-135	8	20	mg/kg	03.01.19 13:15	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	995	100	70-135	7	20	mg/kg	03.01.19 13:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		117		70-135	%	03.01.19 13:15
o-Terphenyl	109		102		70-135	%	03.01.19 13:15

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081082 | Matrix: Solid | Date Prep: 03.04.19
MB Sample Id: 7672940-1-BLK | LCS Sample Id: 7672940-1-BKS | LCSD Sample Id: 7672940-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.129	130	0.129	129	70-130	0	35	mg/kg	03.05.19 00:44	
Toluene	<0.000454	0.0996	0.105	105	0.106	106	70-130	1	35	mg/kg	03.05.19 00:44	
Ethylbenzene	<0.000563	0.0996	0.0939	94	0.0957	96	70-130	2	35	mg/kg	03.05.19 00:44	
m,p-Xylenes	<0.00101	0.199	0.189	95	0.194	97	70-130	3	35	mg/kg	03.05.19 00:44	
o-Xylene	<0.000343	0.0996	0.0928	93	0.0959	96	70-130	3	35	mg/kg	03.05.19 00:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		109		115		70-130	%	03.05.19 00:44
4-Bromofluorobenzene	96		96		103		70-130	%	03.05.19 00:44

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081082 | Matrix: Soil | Date Prep: 03.04.19
Parent Sample Id: 615917-002 | MS Sample Id: 615917-002 S | MSD Sample Id: 615917-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.115	115	0.120	120	70-130	4	35	mg/kg	03.05.19 01:22	
Toluene	0.00257	0.0998	0.0936	91	0.0982	96	70-130	5	35	mg/kg	03.05.19 01:22	
Ethylbenzene	<0.000564	0.0998	0.0792	79	0.0858	86	70-130	8	35	mg/kg	03.05.19 01:22	
m,p-Xylenes	<0.00101	0.200	0.159	80	0.172	86	70-130	8	35	mg/kg	03.05.19 01:22	
o-Xylene	0.000413	0.0998	0.0788	79	0.0841	84	70-130	7	35	mg/kg	03.05.19 01:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		116		70-130	%	03.05.19 01:22
4-Bromofluorobenzene	103		102		70-130	%	03.05.19 01:22

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

Chain of Custody

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Work Order No: 615917

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	☒
P.O. Number:	2RP-4779	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.5/0.4	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS01	S	2/19/2019	1135	2	1	X	X	X
SW01	S	2/19/2019	1138	0-2	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
1	1	2/26/19 9:38	2	2	2/27/19 1:25
3	3		4	4	
5	5		6	6	

Revised Date 051418 Rev. 2018.1

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/27/2019 11:25:00 AM

Work Order #: 615917

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 *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)?	**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: 02/27/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/27/2019

Jessica Kramer

Analytical Report 615919

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV #005H

12918093

05-MAR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

05-MAR-19

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

Reference: XENCO Report No(s): **615919**
PLU CVX JV #005H
Project Address: Delaware Basin

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) 615919. 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. 615919 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 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS09	S	02-19-19 09:35	6	615919-001
SW10	S	02-19-19 09:50	0 - 6	615919-002
SW11	S	02-19-19 09:53	0 - 6	615919-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV #005H

Project ID: *12918093*
Work Order Number(s): *615919*

Report Date: *05-MAR-19*
Date Received: *02/27/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081082 BTEX by EPA 8021B

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

Certificate of Analysis Summary 615919

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV #005H

Project Id: 12918093
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Wed Feb-27-19 12:11 pm
Report Date: 05-MAR-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	615919-001		615919-002		615919-003			
	Field Id:	FS09		SW10		SW11			
	Depth:	6-		0-6		0-6			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Feb-19-19 09:35		Feb-19-19 09:50		Feb-19-19 09:53			
BTEX by EPA 8021B	***Extracted:***	Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00			
	Analyzed:	Mar-05-19 04:11		Mar-05-19 04:30		Mar-05-19 04:49			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200		
Toluene		0.00218	0.00200	0.00215	0.00199	<0.00200	0.00200		
Ethylbenzene		0.00269	0.00200	<0.00199	0.00199	<0.00200	0.00200		
m,p-Xylenes		0.0184	0.00401	<0.00398	0.00398	0.0130	0.00400		
o-Xylene		0.00814	0.00200	<0.00199	0.00199	0.00908	0.00200		
Total Xylenes		0.0265	0.00200	<0.00199	0.00199	0.0221	0.00200		
Total BTEX		0.0314	0.00200	0.00215	0.00199	0.0221	0.00200		
Inorganic Anions by EPA 300	***Extracted:***	Mar-02-19 09:40		Mar-02-19 09:40		Mar-02-19 09:40			
	Analyzed:	Mar-02-19 17:37		Mar-02-19 17:43		Mar-02-19 18:34			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		1650	24.9	941	4.99	1080	5.03		
TPH by SW8015 Mod	***Extracted:***	Mar-01-19 09:00		Mar-01-19 09:00		Mar-01-19 09:00			
	Analyzed:	Mar-01-19 16:06		Mar-01-19 16:25		Mar-01-19 17:23			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		156	15.0	<15.0	15.0	54.1	15.0		
Diesel Range Organics (DRO)		2050	15.0	147	15.0	715	15.0		
Motor Oil Range Hydrocarbons (MRO)		324	15.0	23.1	15.0	114	15.0		
Total TPH		2530	15.0	170	15.0	883	15.0		

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-001	Date Collected:	02.19.19 09.35	Sample Depth:	6

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.02.19 09.40	Basis:	Wet Weight
Seq Number:	3081021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1650**	24.9	mg/kg	03.02.19 17.37		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.01.19 09.00	Basis:	Wet Weight
Seq Number:	3080899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**156**	15.0	mg/kg	03.01.19 16.06		1
Diesel Range Organics (DRO)	C10C28DRO	**2050**	15.0	mg/kg	03.01.19 16.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**324**	15.0	mg/kg	03.01.19 16.06		1
Total TPH	PHC635	**2530**	15.0	mg/kg	03.01.19 16.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	03.01.19 16.06	
o-Terphenyl	84-15-1	126	%	70-135	03.01.19 16.06	

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-001	Date Collected:	02.19.19 09.35	Sample Depth:	6
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.05.19 04.11	U	1
Toluene	108-88-3	**0.00218**	0.00200	mg/kg	03.05.19 04.11		1
Ethylbenzene	100-41-4	**0.00269**	0.00200	mg/kg	03.05.19 04.11		1
m,p-Xylenes	179601-23-1	**0.0184**	0.00401	mg/kg	03.05.19 04.11		1
o-Xylene	95-47-6	**0.00814**	0.00200	mg/kg	03.05.19 04.11		1
Total Xylenes	1330-20-7	**0.0265**	0.00200	mg/kg	03.05.19 04.11		1
Total BTEX		**0.0314**	0.00200	mg/kg	03.05.19 04.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.05.19 04.11	
1,4-Difluorobenzene	540-36-3	114	%	70-130	03.05.19 04.11	

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-002	Date Collected:	02.19.19 09.50	Sample Depth:	0 - 6

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.02.19 09.40	Basis:	Wet Weight
Seq Number:	3081021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**941**	4.99	mg/kg	03.02.19 17.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.01.19 09.00	Basis:	Wet Weight
Seq Number:	3080899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.01.19 16.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	**147**	15.0	mg/kg	03.01.19 16.25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**23.1**	15.0	mg/kg	03.01.19 16.25		1
Total TPH	PHC635	**170**	15.0	mg/kg	03.01.19 16.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.01.19 16.25	
o-Terphenyl	84-15-1	95	%	70-135	03.01.19 16.25	

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-002	Date Collected:	02.19.19 09.50	Sample Depth:	0 - 6
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.05.19 04.30	U	1
Toluene	108-88-3	**0.00215**	0.00199	mg/kg	03.05.19 04.30		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.05.19 04.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.05.19 04.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.05.19 04.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.05.19 04.30	U	1
Total BTEX		**0.00215**	0.00199	mg/kg	03.05.19 04.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	03.05.19 04.30	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.05.19 04.30	

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-003	Date Collected:	02.19.19 09.53	Sample Depth:	0 - 6

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.02.19 09.40	Basis:	Wet Weight
Seq Number:	3081021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1080**	5.03	mg/kg	03.02.19 18.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.01.19 09.00	Basis:	Wet Weight
Seq Number:	3080899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**54.1**	15.0	mg/kg	03.01.19 17.23		1
Diesel Range Organics (DRO)	C10C28DRO	**715**	15.0	mg/kg	03.01.19 17.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**114**	15.0	mg/kg	03.01.19 17.23		1
Total TPH	PHC635	**883**	15.0	mg/kg	03.01.19 17.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.01.19 17.23	
o-Terphenyl	84-15-1	111	%	70-135	03.01.19 17.23	

Certificate of Analytical Results 615919

LT Environmental, Inc., Arvada, CO

PLU CVX JV #005H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	02.27.19 12.11
Lab Sample Id:	615919-003	Date Collected:	02.19.19 09.53	Sample Depth:	0 - 6
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081082				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.05.19 04.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.05.19 04.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.05.19 04.49	U	1
m,p-Xylenes	179601-23-1	**0.0130**	0.00400	mg/kg	03.05.19 04.49		1
o-Xylene	95-47-6	**0.00908**	0.00200	mg/kg	03.05.19 04.49		1
Total Xylenes	1330-20-7	**0.0221**	0.00200	mg/kg	03.05.19 04.49		1
Total BTEX		**0.0221**	0.00200	mg/kg	03.05.19 04.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.05.19 04.49	
4-Bromofluorobenzene	460-00-4	125	%	70-130	03.05.19 04.49	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 615919

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Solid — Date Prep: 03.02.19
MB Sample Id: 7672865-1-BLK — LCS Sample Id: 7672865-1-BKS — LCSD Sample Id: 7672865-1-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	248	99	250	100	90-110	1	20	mg/kg	03.02.19 14:17	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Soil — Date Prep: 03.02.19
Parent Sample Id: 615918-006 — MS Sample Id: 615918-006 S — MSD Sample Id: 615918-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.9	250	277	104	277	104	90-110	0	20	mg/kg	03.04.19 11:14	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081021 — Matrix: Soil — Date Prep: 03.02.19
Parent Sample Id: 615920-009 — MS Sample Id: 615920-009 S — MSD Sample Id: 615920-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	115	250	393	111	382	107	90-110	3	20	mg/kg	03.02.19 17:11	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3080899 — Matrix: Solid — Date Prep: 03.01.19
MB Sample Id: 7672837-1-BLK — LCS Sample Id: 7672837-1-BKS — LCSD Sample Id: 7672837-1-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)	<8.00	1000	899	90	1020	102	70-135	13	20	mg/kg	03.01.19 12:17	
Diesel Range Organics (DRO)	<8.13	1000	937	94	1090	109	70-135	15	20	mg/kg	03.01.19 12:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		122		128		70-135	%	03.01.19 12:17
o-Terphenyl	117		101		118		70-135	%	03.01.19 12:17

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 615919

LT Environmental, Inc.

PLU CVX JV #005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3080899 | Matrix: Soil | Date Prep: 03.01.19
Parent Sample Id: 615917-001 | MS Sample Id: 615917-001 S | MSD Sample Id: 615917-001 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)	<8.00	1000	994	99	921	92	70-135	8	20	mg/kg	03.01.19 13:15	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	995	100	70-135	7	20	mg/kg	03.01.19 13:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		117		70-135	%	03.01.19 13:15
o-Terphenyl	109		102		70-135	%	03.01.19 13:15

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081082 | Matrix: Solid | Date Prep: 03.04.19
MB Sample Id: 7672940-1-BLK | LCS Sample Id: 7672940-1-BKS | LCSD Sample Id: 7672940-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.129	130	0.129	129	70-130	0	35	mg/kg	03.05.19 00:44	
Toluene	<0.000454	0.0996	0.105	105	0.106	106	70-130	1	35	mg/kg	03.05.19 00:44	
Ethylbenzene	<0.000563	0.0996	0.0939	94	0.0957	96	70-130	2	35	mg/kg	03.05.19 00:44	
m,p-Xylenes	<0.00101	0.199	0.189	95	0.194	97	70-130	3	35	mg/kg	03.05.19 00:44	
o-Xylene	<0.000343	0.0996	0.0928	93	0.0959	96	70-130	3	35	mg/kg	03.05.19 00:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		109		115		70-130	%	03.05.19 00:44
4-Bromofluorobenzene	96		96		103		70-130	%	03.05.19 00:44

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3081082 | Matrix: Soil | Date Prep: 03.04.19
Parent Sample Id: 615917-002 | MS Sample Id: 615917-002 S | MSD Sample Id: 615917-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.115	115	0.120	120	70-130	4	35	mg/kg	03.05.19 01:22	
Toluene	0.00257	0.0998	0.0936	91	0.0982	96	70-130	5	35	mg/kg	03.05.19 01:22	
Ethylbenzene	<0.000564	0.0998	0.0792	79	0.0858	86	70-130	8	35	mg/kg	03.05.19 01:22	
m,p-Xylenes	<0.00101	0.200	0.159	80	0.172	86	70-130	8	35	mg/kg	03.05.19 01:22	
o-Xylene	0.000413	0.0998	0.0788	79	0.0841	84	70-130	7	35	mg/kg	03.05.19 01:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		116		70-130	%	03.05.19 01:22
4-Bromofluorobenzene	103		102		70-130	%	03.05.19 01:22

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

Chain of Custody

Work Order No: 1e15919

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178 Email:		abaker@ltenv.com, mwills@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ rownfields R☐C S☐perfund ☐
State of Project:
Reporting:Level II ☐ evel III ☐ ST/UST T☐RP I☐vel IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU CVX JV #005H	Turn Around	
Project Number:	12918093	Routine	X
P.O. Number:	2RP-2526	Rush:	
Sampler's Name:	Martin Wills	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.5/0.4	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
FS09	S	2/19/2019	935	6	1	X	X	X
SW10	S	2/19/2019	950	0-6	1	X	X	X
SW11	S	2/19/2019	953	0-6	1	X	X	X

Work Order Notes

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

Sample Comments

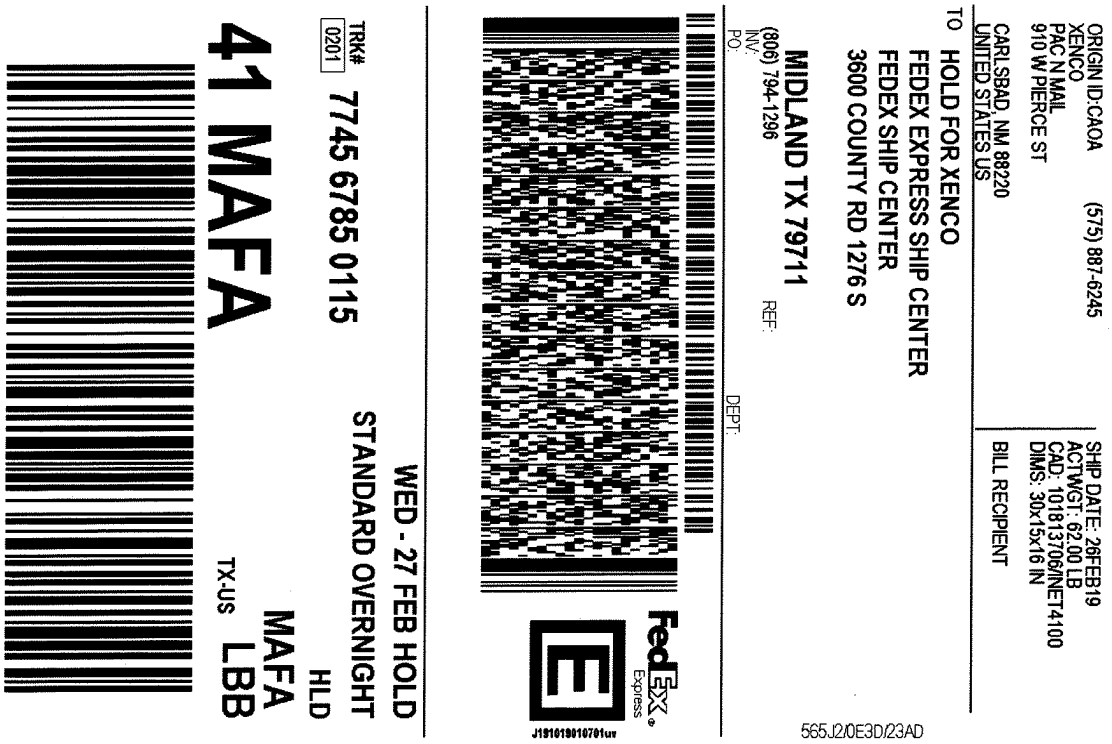
Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

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
1			2/26/19 9:38	2			2/27/19 1125
3				4			
5				6			

Revised Date 051418 Rev. 2018.1



After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/27/2019 12:11:00 PM

Work Order #: 615919

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 *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)?	**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: 02/27/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/27/2019
Jessica Kramer

Analytical Report 620365

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU BS 25

012918093

12-APR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

12-APR-19

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

Reference: XENCO Report No(s): **620365**
PLU BS 25
Project Address: ---

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) 620365. 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. 620365 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,

Kalei Stout
Midland Laboratory Director

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 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	04-02-19 13:00	13 ft	620365-001
PH02	S	04-02-19 14:00	16 ft	620365-002
PH03	S	04-02-19 15:00	8 ft	620365-003
PH04	S	04-03-19 09:40	12 ft	620365-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU BS 25

Project ID: *012918093*
Work Order Number(s): *620365*

Report Date: *12-APR-19*
Date Received: *04/08/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3085039 Inorganic Anions by EPA 300
Lab Sample ID 620365-002 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: 620365-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3085235 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 620365

LT Environmental, Inc., Arvada, CO

Project Name: PLU BS 25

Project Id: 012918093
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Mon Apr-08-19 01:55 pm
Report Date: 12-APR-19
Project Manager: Kalei Stout

Analysis Requested													
	Lab Id:	620365-001		620365-002		620365-003		620365-004					
	Field Id:	PH01		PH02		PH03		PH04					
	Depth:	13- ft		16- ft		8- ft		12- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Apr-02-19 13:00		Apr-02-19 14:00		Apr-02-19 15:00		Apr-03-19 09:40					
BTEX by EPA 8021B	***Extracted:***	Apr-10-19 12:00		Apr-10-19 12:00		Apr-10-19 12:00		Apr-10-19 12:00					
	Analyzed:	Apr-10-19 17:29		Apr-10-19 17:48		Apr-10-19 18:07		Apr-10-19 18:27					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
m,p-Xylenes		<0.00401	0.00401	<0.00402	0.00402	<0.00404	0.00404	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Apr-08-19 17:00		Apr-08-19 17:00		Apr-08-19 17:00		Apr-08-19 17:00					
	Analyzed:	Apr-09-19 08:05		Apr-09-19 09:53		Apr-09-19 11:08		Apr-09-19 11:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		637	5.03	441	4.99	43.2	4.96	74.3	4.96				
TPH by SW8015 Mod	***Extracted:***	** ** ** **		** ** ** **		** ** ** **		** ** ** **					
	Analyzed:	Apr-08-19 17:42		Apr-08-19 18:01		Apr-08-19 18:19		Apr-08-19 18:38					
	Units/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	<14.9	14.9				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				
Motor Oil Range Hydrocarbons (MRO)		<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	<14.9	14.9				
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9				

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

Kalei Stout
Midland Laboratory Director

Final 1.000

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-001	Date Collected:	04.02.19 13.00	Sample Depth:	13 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.08.19 17.00	Basis:	Wet Weight
Seq Number:	3085039				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**637**	5.03	mg/kg	04.09.19 08.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.08.19 09.00	Basis:	Wet Weight
Seq Number:	3085086				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.08.19 17.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.08.19 17.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.08.19 17.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.08.19 17.42	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.08.19 17.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.08.19 17.42	
o-Terphenyl	84-15-1	99	%	70-135	04.08.19 17.42	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-001	Date Collected:	04.02.19 13.00	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.19 12.00	Basis:	Wet Weight
Seq Number:	3085235				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.19 17.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.19 17.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.10.19 17.29	
1,4-Difluorobenzene	540-36-3	89	%	70-130	04.10.19 17.29	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-002	Date Collected:	04.02.19 14.00	Sample Depth:	16 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.08.19 17.00	Basis:	Wet Weight
Seq Number:	3085039				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**441**	4.99	mg/kg	04.09.19 09.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.08.19 09.00	Basis:	Wet Weight
Seq Number:	3085086				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.08.19 18.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.08.19 18.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.08.19 18.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.08.19 18.01	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.08.19 18.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.08.19 18.01	
o-Terphenyl	84-15-1	95	%	70-135	04.08.19 18.01	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-002	Date Collected:	04.02.19 14.00	Sample Depth:	16 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.19 12.00	Basis:	Wet Weight
Seq Number:	3085235				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.10.19 17.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.10.19 17.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.10.19 17.48	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.10.19 17.48	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-003	Date Collected:	04.02.19 15.00	Sample Depth:	8 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.08.19 17.00	Basis:	Wet Weight
Seq Number:	3085039				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.2**	4.96	mg/kg	04.09.19 11.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.08.19 09.00	Basis:	Wet Weight
Seq Number:	3085086				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.08.19 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.08.19 18.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.08.19 18.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.08.19 18.19	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.08.19 18.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.08.19 18.19	
o-Terphenyl	84-15-1	92	%	70-135	04.08.19 18.19	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-003	Date Collected:	04.02.19 15.00	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.19 12.00	Basis:	Wet Weight
Seq Number:	3085235				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.10.19 18.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.10.19 18.07	
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.10.19 18.07	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-004	Date Collected:	04.03.19 09.40	Sample Depth:	12 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.08.19 17.00	Basis:	Wet Weight
Seq Number:	3085039				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**74.3**	4.96	mg/kg	04.09.19 11.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.08.19 09.00	Basis:	Wet Weight
Seq Number:	3085086				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.08.19 18.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.08.19 18.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.08.19 18.38	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.08.19 18.38	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	04.08.19 18.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.08.19 18.38	
o-Terphenyl	84-15-1	96	%	70-135	04.08.19 18.38	

Certificate of Analytical Results 620365

LT Environmental, Inc., Arvada, CO

PLU BS 25

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	04.08.19 13.55
Lab Sample Id:	620365-004	Date Collected:	04.03.19 09.40	Sample Depth:	12 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.19 12.00	Basis:	Wet Weight
Seq Number:	3085235				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.10.19 18.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.10.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	04.10.19 18.27	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.10.19 18.27	

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 620365

LT Environmental, Inc.

PLU BS 25

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3085039 — Matrix: Solid — Date Prep: 04.08.19
MB Sample Id: 7675306-1-BLK — LCS Sample Id: 7675306-1-BKS — LCSD Sample Id: 7675306-1-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	250	100	252	101	90-110	1	20	mg/kg	04.09.19 07:51	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3085039 — Matrix: Soil — Date Prep: 04.08.19
Parent Sample Id: 620365-001 — MS Sample Id: 620365-001 S — MSD Sample Id: 620365-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	637	252	802	65	882	97	90-110	10	20	mg/kg	04.09.19 08:11	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3085039 — Matrix: Soil — Date Prep: 04.08.19
Parent Sample Id: 620365-002 — MS Sample Id: 620365-002 S — MSD Sample Id: 620365-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	441	250	563	49	563	49	90-110	0	20	mg/kg	04.09.19 10:00	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3085086 — Matrix: Solid — Date Prep: 04.08.19
MB Sample Id: 7675364-1-BLK — LCS Sample Id: 7675364-1-BKS — LCSD Sample Id: 7675364-1-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)	<8.00	1000	948	95	981	98	70-135	3	20	mg/kg	04.08.19 11:01	
Diesel Range Organics (DRO)	<8.13	1000	1010	101	1050	105	70-135	4	20	mg/kg	04.08.19 11:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		123		126		70-135	%	04.08.19 11:01
o-Terphenyl	103		118		121		70-135	%	04.08.19 11:01

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

QC Summary 620365

LT Environmental, Inc.

PLU BS 25

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3085086 | Matrix: Soil | Date Prep: 04.08.19
Parent Sample Id: 620302-001 | MS Sample Id: 620302-001 S | MSD Sample Id: 620302-001 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)	<7.99	998	972	97	984	98	70-135	1	20	mg/kg	04.08.19 11:59	
Diesel Range Organics (DRO)	<8.11	998	1090	109	1100	110	70-135	1	20	mg/kg	04.08.19 11:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		117		70-135	%	04.08.19 11:59
o-Terphenyl	96		98		70-135	%	04.08.19 11:59

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3085235 | Matrix: Solid | Date Prep: 04.10.19
MB Sample Id: 7675486-1-BLK | LCS Sample Id: 7675486-1-BKS | LCSD Sample Id: 7675486-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0984	99	0.106	107	70-130	7	35	mg/kg	04.10.19 13:46	
Toluene	<0.000454	0.0996	0.100	100	0.107	108	70-130	7	35	mg/kg	04.10.19 13:46	
Ethylbenzene	<0.000563	0.0996	0.0940	94	0.100	101	70-130	6	35	mg/kg	04.10.19 13:46	
m,p-Xylenes	<0.00101	0.199	0.187	94	0.200	101	70-130	7	35	mg/kg	04.10.19 13:46	
o-Xylene	<0.000343	0.0996	0.0935	94	0.101	102	70-130	8	35	mg/kg	04.10.19 13:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		98		100		70-130	%	04.10.19 13:46
4-Bromofluorobenzene	88		95		99		70-130	%	04.10.19 13:46

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3085235 | Matrix: Soil | Date Prep: 04.10.19
Parent Sample Id: 620613-001 | MS Sample Id: 620613-001 S | MSD Sample Id: 620613-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.0932	93	0.0782	79	70-130	18	35	mg/kg	04.10.19 14:26	
Toluene	<0.000457	0.100	0.0926	93	0.0787	79	70-130	16	35	mg/kg	04.10.19 14:26	
Ethylbenzene	<0.000566	0.100	0.0849	85	0.0718	72	70-130	17	35	mg/kg	04.10.19 14:26	
m,p-Xylenes	<0.00102	0.200	0.169	85	0.144	72	70-130	16	35	mg/kg	04.10.19 14:26	
o-Xylene	<0.000345	0.100	0.0849	85	0.0728	73	70-130	15	35	mg/kg	04.10.19 14:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		97		70-130	%	04.10.19 14:26
4-Bromofluorobenzene	99		98		70-130	%	04.10.19 14:26

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

Chain of Custody

Work Order No: U203625

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	abaker@ltenv.com

Work Order Comments

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

Project Name:	PLU BS 25	Turn Around	
Project Number:	012918093	Routine ☐	
P.O. Number:		Rush: 3 day	
Sampler's Name:	L. Lambach	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.5 & 0.4	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH01	S	04/02/2019	13:00	13'	1	X	X	X
PH02	S		14:00	16'	1	X	X	X
PH03	S		15:00	8'	1	X	X	X
PH04	S		9:40	12'	1	X	X	X
		04/02/2019						

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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		04/08/19 8:30	2		4/8/19
3			4		1355
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/08/2019 01:55:00 PM

Work Order #: 620365

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 *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)?	**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: 04/08/2019

Brianna Teel

Checklist reviewed by: Kalei Stout Date: 04/08/2019

Kalei Stout

Analytical Report 621702

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV BS 005H

23-APR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

23-APR-19

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

Reference: XENCO Report No(s): **621702**
PLU CVX JV BS 005H
Project Address: ---

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) 621702. 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. 621702 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,

Kalei Stout
Midland Laboratory Director

Sample Cross Reference 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH05	S	04-17-19 16:30	3.5 ft	621702-001
PH05A	S	04-17-19 16:50	6.5 ft	621702-002
PH06	S	04-17-19 13:20	0.5 ft	621702-003
PH06A	S	04-17-19 13:45	2.5 ft	621702-004
PH07	S	04-17-19 11:10	3.0 ft	621702-005
PH07A	S	04-17-19 11:30	4.5 ft	621702-006
PH08	S	04-17-19 12:10	6.0 ft	621702-007
PH08A	S	04-17-19 12:55	11.0 ft	621702-008
PH06B	S	04-17-19 13:55	6.5 ft	621702-009

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 005H

Project ID: ---
Work Order Number(s): *621702*

Report Date: *23-APR-19*
Date Received: *04/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3086496 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 621702-002,621702-008,621702-004.

Batch: LBA-3086499 BTEX by EPA 8021B
Lab Sample ID 621702-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 621702-009.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 621702-009 SD.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 621702-009

Batch: LBA-3086560 Chloride by EPA 300
Lab Sample ID 621702-002 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: 621702-001, -002, -003, -004, -005, -006, -007, -008, -009.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 621702

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 005H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Apr-19-19 12:00 pm
Report Date: 23-APR-19
Project Manager: Kalei Stout

Analysis Requested													
	Lab Id:	621702-001		621702-002		621702-003		621702-004		621702-005		621702-006	
	Field Id:	PH05		PH05A		PH06		PH06A		PH07		PH07A	
	Depth:	3.5- ft		6.5- ft		0.5- ft		2.5- ft		3.0- ft		4.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-17-19 16:30		Apr-17-19 16:50		Apr-17-19 13:20		Apr-17-19 13:45		Apr-17-19 11:10		Apr-17-19 11:30	
BTEX by EPA 8021B	***Extracted:***	Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15	
	Analyzed:	Apr-19-19 20:42		Apr-19-19 21:01		Apr-19-19 21:20		Apr-19-19 21:39		Apr-19-19 21:58		Apr-19-19 22:17	
	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	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	Apr-19-19 16:00		Apr-19-19 16:00		Apr-19-19 16:00		Apr-19-19 16:00		Apr-19-19 16:00		Apr-19-19 16:00	
	Analyzed:	Apr-22-19 16:44		Apr-22-19 16:59		Apr-22-19 16:52		Apr-22-19 17:21		Apr-22-19 17:28		Apr-23-19 09:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		188	5.00	191	5.03	1140	4.98	308	4.99	226	5.04	228	4.95
TPH by SW8015 Mod	***Extracted:***	Apr-20-19 09:00		Apr-20-19 09:00		Apr-20-19 09:00		Apr-20-19 09:00		Apr-20-19 09:00		Apr-20-19 09:00	
	Analyzed:	Apr-20-19 16:14		Apr-20-19 16:34		Apr-20-19 17:32		Apr-20-19 17:52		Apr-20-19 18:12		Apr-20-19 18:32	
	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)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Kalei Stout
Midland Laboratory Director

Final 1.000

Certificate of Analysis Summary 621702

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 005H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Apr-19-19 12:00 pm
Report Date: 23-APR-19
Project Manager: Kalei Stout

Analysis Requested									
	Lab Id:	621702-007		621702-008		621702-009			
	Field Id:	PH08		PH08A		PH06B			
	Depth:	6.0- ft		11.0- ft		6.5- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Apr-17-19 12:10		Apr-17-19 12:55		Apr-17-19 13:55			
BTEX by EPA 8021B	***Extracted:***	Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:30			
	Analyzed:	Apr-19-19 22:36		Apr-19-19 22:55		Apr-20-19 01:43			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00402	0.00402		
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201		
Chloride by EPA 300	***Extracted:***	Apr-19-19 16:00		Apr-19-19 16:00		Apr-19-19 16:00			
	Analyzed:	Apr-23-19 09:39		Apr-23-19 09:44		Apr-23-19 09:49			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		300	4.98	101	4.96	62.6	4.95		
TPH by SW8015 Mod	***Extracted:***	Apr-20-19 09:00		Apr-20-19 09:00		Apr-20-19 09:00			
	Analyzed:	Apr-20-19 18:52		Apr-20-19 19:11		Apr-20-19 19:30			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9		
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9		
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9		
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9		

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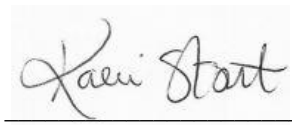

Kalei Stout
Midland Laboratory Director

Final 1.000

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-001	Date Collected:	04.17.19 16.30	Sample Depth:	3.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	5.00	mg/kg	04.22.19 16.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 16.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 16.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 16.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 16.14	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 16.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	04.20.19 16.14	
o-Terphenyl	84-15-1	91	%	70-135	04.20.19 16.14	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-001	Date Collected:	04.17.19 16.30	Sample Depth:	3.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.19.19 20.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 20.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	04.19.19 20.42	
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.19.19 20.42	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-002	Date Collected:	04.17.19 16.50	Sample Depth:	6.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**191**	5.03	mg/kg	04.22.19 16.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 16.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 16.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 16.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 16.34	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 16.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.20.19 16.34	
o-Terphenyl	84-15-1	94	%	70-135	04.20.19 16.34	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-002	Date Collected:	04.17.19 16.50	Sample Depth:	6.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.19.19 21.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.19.19 21.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.19.19 21.01	
4-Bromofluorobenzene	460-00-4	151	%	70-130	04.19.19 21.01	**

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-003	Date Collected:	04.17.19 13.20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	4.98	mg/kg	04.22.19 16.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 17.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 17.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 17.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 17.32	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 17.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.20.19 17.32	
o-Terphenyl	84-15-1	90	%	70-135	04.20.19 17.32	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-003	Date Collected:	04.17.19 13.20	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.19.19 21.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.19.19 21.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.19.19 21.20	
4-Bromofluorobenzene	460-00-4	124	%	70-130	04.19.19 21.20	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-004	Date Collected:	04.17.19 13.45	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**308**	4.99	mg/kg	04.22.19 17.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 17.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 17.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 17.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 17.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 17.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	04.20.19 17.52	
o-Terphenyl	84-15-1	91	%	70-135	04.20.19 17.52	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-004	Date Collected:	04.17.19 13.45	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.19.19 21.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 21.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.19.19 21.39	
4-Bromofluorobenzene	460-00-4	133	%	70-130	04.19.19 21.39	**

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-005	Date Collected:	04.17.19 11.10	Sample Depth:	3.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**226**	5.04	mg/kg	04.22.19 17.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 18.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 18.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 18.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 18.12	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 18.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	04.20.19 18.12	
o-Terphenyl	84-15-1	86	%	70-135	04.20.19 18.12	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-005	Date Collected:	04.17.19 11.10	Sample Depth:	3.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.19.19 21.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 21.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	04.19.19 21.58	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.19.19 21.58	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-006	Date Collected:	04.17.19 11.30	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**228**	4.95	mg/kg	04.23.19 09.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 18.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 18.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 18.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 18.32	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 18.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	04.20.19 18.32	
o-Terphenyl	84-15-1	91	%	70-135	04.20.19 18.32	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-006	Date Collected:	04.17.19 11.30	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.19.19 22.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 22.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	04.19.19 22.17	
4-Bromofluorobenzene	460-00-4	125	%	70-130	04.19.19 22.17	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-007	Date Collected:	04.17.19 12.10	Sample Depth:	6.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**300**	4.98	mg/kg	04.23.19 09.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 18.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 18.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 18.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 18.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 18.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	04.20.19 18.52	
o-Terphenyl	84-15-1	91	%	70-135	04.20.19 18.52	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-007	Date Collected:	04.17.19 12.10	Sample Depth:	6.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.19.19 22.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.19.19 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	04.19.19 22.36	
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.19.19 22.36	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-008	Date Collected:	04.17.19 12.55	Sample Depth:	11.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**101**	4.96	mg/kg	04.23.19 09.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 19.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 19.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 19.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 19.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 19.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	04.20.19 19.11	
o-Terphenyl	84-15-1	92	%	70-135	04.20.19 19.11	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-008	Date Collected:	04.17.19 12.55	Sample Depth:	11.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.19.19 22.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.19.19 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	04.19.19 22.55	
4-Bromofluorobenzene	460-00-4	155	%	70-130	04.19.19 22.55	**

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-009	Date Collected:	04.17.19 13.55	Sample Depth:	6.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086560				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.6**	4.95	mg/kg	04.23.19 09.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 09.00	Basis:	Wet Weight
Seq Number:	3086487				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.20.19 19.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.20.19 19.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.20.19 19.30	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.20.19 19.30	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	04.20.19 19.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.20.19 19.30	
o-Terphenyl	84-15-1	94	%	70-135	04.20.19 19.30	

Certificate of Analytical Results 621702

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621702-009	Date Collected:	04.17.19 13.55	Sample Depth:	6.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.30	Basis:	Wet Weight
Seq Number:	3086499				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.20.19 01.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.20.19 01.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	04.20.19 01.43	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.20.19 01.43	

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 621702

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086560 — Matrix: Solid — Date Prep: 04.19.19
MB Sample Id: 7676198-1-BLK — LCS Sample Id: 7676198-1-BKS — LCSD Sample Id: 7676198-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.75	250	271	108	271	108	90-110	0	20	mg/kg	04.22.19 13:13	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086560 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621700-002 — MS Sample Id: 621700-002 S — MSD Sample Id: 621700-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	997	248	1230	94	1240	98	90-110	1	20	mg/kg	04.22.19 15:20	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086560 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621702-002 — MS Sample Id: 621702-002 S — MSD Sample Id: 621702-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	191	252	480	115	500	123	90-110	4	20	mg/kg	04.22.19 17:06	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3086487 — Matrix: Solid — Date Prep: 04.20.19
MB Sample Id: 7676240-1-BLK — LCS Sample Id: 7676240-1-BKS — LCSD Sample Id: 7676240-1-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)	<8.00	1000	919	92	933	93	70-135	2	20	mg/kg	04.20.19 12:20	
Diesel Range Organics (DRO)	<8.13	1000	935	94	957	96	70-135	2	20	mg/kg	04.20.19 12:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		117		118		70-135	%	04.20.19 12:20
o-Terphenyl	95		110		113		70-135	%	04.20.19 12:20

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 621702

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3086487 Matrix: Soil Date Prep: 04.20.19
Parent Sample Id: 621700-001 MS Sample Id: 621700-001 S MSD Sample Id: 621700-001 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)	9.25	1000	862	85	868	86	70-135	1	20	mg/kg	04.20.19 13:18	
Diesel Range Organics (DRO)	<8.13	1000	894	89	896	90	70-135	0	20	mg/kg	04.20.19 13:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		115		70-135	%	04.20.19 13:18
o-Terphenyl	107		113		70-135	%	04.20.19 13:18

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3086496 Matrix: Solid Date Prep: 04.19.19
MB Sample Id: 7676257-1-BLK LCS Sample Id: 7676257-1-BKS LCSD Sample Id: 7676257-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0914	92	0.0932	93	70-130	2	35	mg/kg	04.19.19 14:07	
Toluene	<0.00199	0.0996	0.0968	97	0.0983	98	70-130	2	35	mg/kg	04.19.19 14:07	
Ethylbenzene	<0.00199	0.0996	0.103	103	0.105	105	70-130	2	35	mg/kg	04.19.19 14:07	
m,p-Xylenes	<0.00101	0.199	0.209	105	0.212	106	70-130	1	35	mg/kg	04.19.19 14:07	
o-Xylene	<0.00199	0.0996	0.106	106	0.108	108	70-130	2	35	mg/kg	04.19.19 14:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		95		95		70-130	%	04.19.19 14:07
4-Bromofluorobenzene	111		108		108		70-130	%	04.19.19 14:07

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3086499 Matrix: Solid Date Prep: 04.19.19
MB Sample Id: 7676259-1-BLK LCS Sample Id: 7676259-1-BKS LCSD Sample Id: 7676259-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0911	91	0.0925	93	70-130	2	35	mg/kg	04.19.19 23:51	
Toluene	<0.00199	0.0996	0.0952	96	0.0961	96	70-130	1	35	mg/kg	04.19.19 23:51	
Ethylbenzene	<0.00199	0.0996	0.101	101	0.102	102	70-130	1	35	mg/kg	04.19.19 23:51	
m,p-Xylenes	<0.00101	0.199	0.202	102	0.204	102	70-130	1	35	mg/kg	04.19.19 23:51	
o-Xylene	<0.00199	0.0996	0.104	104	0.105	105	70-130	1	35	mg/kg	04.19.19 23:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		96		95		70-130	%	04.19.19 23:51
4-Bromofluorobenzene	106		107		107		70-130	%	04.19.19 23:51

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 621702

LT Environmental, Inc.

PLU CVX JV BS 005H

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

Seq Number: 3086496 Matrix: Soil Date Prep: 04.19.19

Parent Sample Id: 621719-001 MS Sample Id: 621719-001 S MSD Sample Id: 621719-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.0813	82	0.0829	83	70-130	2	35	mg/kg	04.19.19 14:45	
Toluene	0.000543	0.0994	0.0865	86	0.0874	87	70-130	1	35	mg/kg	04.19.19 14:45	
Ethylbenzene	<0.000561	0.0994	0.0917	92	0.0925	93	70-130	1	35	mg/kg	04.19.19 14:45	
m,p-Xylenes	<0.00101	0.199	0.187	94	0.187	94	70-130	0	35	mg/kg	04.19.19 14:45	
o-Xylene	0.000413	0.0994	0.0950	95	0.0954	95	70-130	0	35	mg/kg	04.19.19 14:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		96		70-130	%	04.19.19 14:45
4-Bromofluorobenzene	113		112		70-130	%	04.19.19 14:45

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

Seq Number: 3086499 Matrix: Soil Date Prep: 04.19.19

Parent Sample Id: 621702-009 MS Sample Id: 621702-009 S MSD Sample Id: 621702-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.0775	77	0.0351	35	70-130	75	35	mg/kg	04.20.19 00:29	XF
Toluene	<0.000459	0.101	0.0835	83	0.0499	50	70-130	50	35	mg/kg	04.20.19 00:29	XF
Ethylbenzene	<0.000569	0.101	0.0890	88	0.0573	58	70-130	43	35	mg/kg	04.20.19 00:29	XF
m,p-Xylenes	<0.00102	0.202	0.180	89	0.114	58	70-130	45	35	mg/kg	04.20.19 00:29	XF
o-Xylene	<0.000347	0.101	0.0929	92	0.0610	61	70-130	41	35	mg/kg	04.20.19 00:29	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		91		70-130	%	04.20.19 00:29
4-Bromofluorobenzene	115		132	**	70-130	%	04.20.19 00:29

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

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 1

Work Order No: 421702

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	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:	432.704.5178	Email:	abyers@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JU BS 005H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	2RP-2526	Rush:	Same day
Sampler's Name:	Anna Byers	Due Date:	

SAMPLE RECEIPT

Temperature (°C):	0.3/0.2	Temp Blank: Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID:	VC
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH05	S	4/17/19	1630	3.5'	1			
PH05A			1650	6.5'	1			
PH06			1320	0.5'	1			
PH06A			1345	2.5'	1			
PH07			1110	3.0'	1			
PH07A			1130	4.5'	1			
PH08			1210	6.0'	1			
PH08A			1255	11.0'	1			
PH06B			1355	6.5'				

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
Anna Byers		4/18/19 1550	2		04/18/19 1536
			4		4/18/19 1550
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/19/2019 12:00:00 PM

Work Order #: 621702

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
#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)?	**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: 04/19/2019

Brianna Teel

Checklist reviewed by: Kalei Stout Date: 04/19/2019

Kalei Stout

Analytical Report 621114

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CNXJUBS #005H

17-APR-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

17-APR-19

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

Reference: XENCO Report No(s): **621114**
PLU CNXJUBS #005H
Project Address: ---

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) 621114. 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. 621114 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,

Kalei Stout
Carlsbad Laboratory Director

Sample Cross Reference 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW12	S	04-12-19 13:35	0 - 4 ft	621114-001
PH09	S	04-12-19 11:40	4.5 ft	621114-002
PH09A	S	04-12-19 11:55	7.5 ft	621114-003
PH10	S	04-12-19 12:40	8.5 ft	621114-004
PH10A	S	04-12-19 12:55	12.5 ft	621114-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CNXJUBS #005H

Project ID: ---
Work Order Number(s): *621114*

Report Date: *17-APR-19*
Date Received: *04/15/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3085873 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3086010 Inorganic Anions by EPA 300
Lab Sample ID 621239-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 621114-001, -002, -003, -004, -005.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 621114

LT Environmental, Inc., Arvada, CO

Project Name: PLU CNXJUBS #005H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Mon Apr-15-19 11:20 am
Report Date: 17-APR-19
Project Manager: Kalei Stout

Analysis Requested											
	Lab Id:	621114-001		621114-002		621114-003		621114-004		621114-005	
	Field Id:	SW12		PH09		PH09A		PH10		PH10A	
	Depth:	0-4 ft		4.5- ft		7.5- ft		8.5- ft		12.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-12-19 13:35		Apr-12-19 11:40		Apr-12-19 11:55		Apr-12-19 12:40		Apr-12-19 12:55	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Apr-16-19 12:45		Apr-16-19 12:45		Apr-16-19 12:45		Apr-16-19 12:45		Apr-16-19 12:45	
	Analyzed:	Apr-16-19 16:57		Apr-16-19 17:16		Apr-16-19 17:35		Apr-16-19 17:54		Apr-16-19 18:13	
	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	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398	<0.00403	0.00403	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Apr-16-19 14:00		Apr-16-19 14:00		Apr-16-19 14:00		Apr-16-19 14:00		Apr-16-19 14:00	
	Analyzed:	Apr-17-19 07:37		Apr-17-19 07:43		Apr-17-19 07:50		Apr-17-19 07:56		Apr-17-19 08:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		119	5.01	1180	24.9	40.6	5.00	1140	24.8	108	4.96
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Apr-16-19 17:00		Apr-16-19 17:00		Apr-16-19 17:00		Apr-16-19 17:00		Apr-16-19 17:00	
	Analyzed:	Apr-16-19 21:36		Apr-16-19 22:35		Apr-16-19 22:54		Apr-16-19 23:14		Apr-16-19 23:33	
	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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Kalei Stout
Carlsbad Laboratory Director

Final 1.000

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-001	Date Collected:	04.12.19 13.35	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	04.16.19 14.00	Basis:	Wet Weight
Seq Number:	3086010			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**119**	5.01	mg/kg	04.17.19 07.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.16.19 17.00	Basis:	Wet Weight
Seq Number:	3085983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.16.19 21.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.16.19 21.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.16.19 21.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.16.19 21.36	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.16.19 21.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.16.19 21.36	
o-Terphenyl	84-15-1	96	%	70-135	04.16.19 21.36	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-001	Date Collected:	04.12.19 13.35	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.16.19 12.45	Basis:	Wet Weight
Seq Number:	3085873			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.16.19 16.57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.16.19 16.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.16.19 16.57	
4-Bromofluorobenzene	460-00-4	109	%	70-130	04.16.19 16.57	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-002	Date Collected:	04.12.19 11.40	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	04.16.19 14.00	Basis:	Wet Weight
Seq Number:	3086010			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1180**	24.9	mg/kg	04.17.19 07.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.16.19 17.00	Basis:	Wet Weight
Seq Number:	3085983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.16.19 22.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.16.19 22.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.16.19 22.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.16.19 22.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.16.19 22.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	04.16.19 22.35	
o-Terphenyl	84-15-1	101	%	70-135	04.16.19 22.35	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-002	Date Collected:	04.12.19 11.40	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.16.19 12.45	Basis:	Wet Weight
Seq Number:	3085873			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.16.19 17.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	04.16.19 17.16	
1,4-Difluorobenzene	540-36-3	104	%	70-130	04.16.19 17.16	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-003	Date Collected:	04.12.19 11.55	Sample Depth:	7.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	04.16.19 14.00	Basis:	Wet Weight
Seq Number:	3086010			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.6**	5.00	mg/kg	04.17.19 07.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.16.19 17.00	Basis:	Wet Weight
Seq Number:	3085983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.16.19 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.16.19 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.16.19 22.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.16.19 22.54	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.16.19 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	04.16.19 22.54	
o-Terphenyl	84-15-1	105	%	70-135	04.16.19 22.54	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-003	Date Collected:	04.12.19 11.55	Sample Depth:	7.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.16.19 12.45	Basis:	Wet Weight
Seq Number:	3085873			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.19 17.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.19 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.16.19 17.35	
1,4-Difluorobenzene	540-36-3	104	%	70-130	04.16.19 17.35	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-004	Date Collected:	04.12.19 12.40	Sample Depth:	8.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	04.16.19 14.00	Basis:	Wet Weight
Seq Number:	3086010			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	24.8	mg/kg	04.17.19 07.56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.16.19 17.00	Basis:	Wet Weight
Seq Number:	3085983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.16.19 23.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.16.19 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.16.19 23.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.16.19 23.14	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.16.19 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.16.19 23.14	
o-Terphenyl	84-15-1	100	%	70-135	04.16.19 23.14	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-004	Date Collected:	04.12.19 12.40	Sample Depth:	8.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.16.19 12.45	Basis:	Wet Weight
Seq Number:	3085873			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.16.19 17.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.16.19 17.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.16.19 17.54	
4-Bromofluorobenzene	460-00-4	113	%	70-130	04.16.19 17.54	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-005	Date Collected:	04.12.19 12.55	Sample Depth:	12.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	04.16.19 14.00	Basis:	Wet Weight
Seq Number:	3086010			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**108**	4.96	mg/kg	04.17.19 08.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.16.19 17.00	Basis:	Wet Weight
Seq Number:	3085983			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.16.19 23.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.16.19 23.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.16.19 23.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.16.19 23.33	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.16.19 23.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.16.19 23.33	
o-Terphenyl	84-15-1	99	%	70-135	04.16.19 23.33	

Certificate of Analytical Results 621114

LT Environmental, Inc., Arvada, CO

PLU CNXJUBS #005H

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	04.15.19 11.20
Lab Sample Id:	621114-005	Date Collected:	04.12.19 12.55	Sample Depth:	12.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.16.19 12.45	Basis:	Wet Weight
Seq Number:	3085873			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.16.19 18.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.19 18.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.16.19 18.13	
4-Bromofluorobenzene	460-00-4	125	%	70-130	04.16.19 18.13	

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 621114

LT Environmental, Inc.

PLU CNXJUBS #005H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086010 — Matrix: Solid — Date Prep: 04.16.19
MB Sample Id: 7675970-1-BLK — LCS Sample Id: 7675970-1-BKS — LCSD Sample Id: 7675970-1-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	254	102	251	100	90-110	1	20	mg/kg	04.16.19 16:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086010 — Matrix: Soil — Date Prep: 04.16.19
Parent Sample Id: 621114-005 — MS Sample Id: 621114-005 S — MSD Sample Id: 621114-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	108	248	348	97	323	87	90-110	7	20	mg/kg	04.17.19 08:09	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086010 — Matrix: Soil — Date Prep: 04.16.19
Parent Sample Id: 621239-001 — MS Sample Id: 621239-001 S — MSD Sample Id: 621239-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	141	250	395	102	390	100	90-110	1	20	mg/kg	04.16.19 16:31	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3085983 — Matrix: Solid — Date Prep: 04.16.19
MB Sample Id: 7675909-1-BLK — LCS Sample Id: 7675909-1-BKS — LCSD Sample Id: 7675909-1-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)	<8.00	1000	1060	106	993	99	70-135	7	20	mg/kg	04.16.19 20:57	
Diesel Range Organics (DRO)	<8.13	1000	1090	109	1010	101	70-135	8	20	mg/kg	04.16.19 20:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		129		128		70-135	%	04.16.19 20:57
o-Terphenyl	115		118		125		70-135	%	04.16.19 20:57

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 621114

LT Environmental, Inc.

PLU CNXJUBS #005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3085983 | Matrix: Soil | Date Prep: 04.16.19
Parent Sample Id: 621114-001 | MS Sample Id: 621114-001 S | MSD Sample Id: 621114-001 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)	12.7	999	1000	99	1000	99	70-135	0	20	mg/kg	04.16.19 21:56	
Diesel Range Organics (DRO)	13.9	999	1050	104	1060	105	70-135	1	20	mg/kg	04.16.19 21:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		122		70-135	%	04.16.19 21:56
o-Terphenyl	123		113		70-135	%	04.16.19 21:56

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3085873 | Matrix: Solid | Date Prep: 04.16.19
MB Sample Id: 7675873-1-BLK | LCS Sample Id: 7675873-1-BKS | LCSD Sample Id: 7675873-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000381	0.0990	0.0974	98	0.0993	99	70-130	2	35	mg/kg	04.16.19 09:03	
Toluene	0.000579	0.0990	0.0995	101	0.102	102	70-130	2	35	mg/kg	04.16.19 09:03	
Ethylbenzene	<0.000559	0.0990	0.105	106	0.108	108	70-130	3	35	mg/kg	04.16.19 09:03	
m,p-Xylenes	<0.00100	0.198	0.213	108	0.217	109	70-130	2	35	mg/kg	04.16.19 09:03	
o-Xylene	0.000439	0.0990	0.107	108	0.109	109	70-130	2	35	mg/kg	04.16.19 09:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		95		96		70-130	%	04.16.19 09:03
4-Bromofluorobenzene	109		106		108		70-130	%	04.16.19 09:03

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3085873 | Matrix: Soil | Date Prep: 04.16.19
Parent Sample Id: 621041-010 | MS Sample Id: 621041-010 S | MSD Sample Id: 621041-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0899	89	0.0919	92	70-130	2	35	mg/kg	04.16.19 09:41	
Toluene	<0.000460	0.101	0.0892	88	0.0900	91	70-130	1	35	mg/kg	04.16.19 09:41	
Ethylbenzene	<0.000570	0.101	0.0923	91	0.0930	94	70-130	1	35	mg/kg	04.16.19 09:41	
m,p-Xylenes	<0.00102	0.202	0.185	92	0.186	93	70-130	1	35	mg/kg	04.16.19 09:41	
o-Xylene	<0.00202	0.101	0.0932	92	0.0936	94	70-130	0	35	mg/kg	04.16.19 09:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	04.16.19 09:41
4-Bromofluorobenzene	110		110		70-130	%	04.16.19 09:41

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

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

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

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

Final 1.000

Chain of Custody

Work Order No: 621114

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	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:	432.704.5178	Email:	abyers@lenv.com

Work Order Comments

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

Project Name:	PLU CUX JV BS #005H	Turn Around	
Project Number:	~~21~~	Routine	☐
P.O. Number:	2RP27526	Rush:	Same day
Sampler's Name:	Anna Byers	Due Date:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4/1.2.8	Thermometer ID:	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	(Yes) No N/A	Correction Factor:	NA
Sample Custody Seals:	(Yes) No N/A	Total Containers:	5

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW12	S	4/12/19	1335	0-4'	1			
PH09	S		1140	4.5'	1			
PH09A	S		1155	7.5'	1			
PH10	S		1240	8.5'	1			
PH10A	S		1255	12.5'	1			

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
Anna Byers		4/15/19 @ 0700	2		04/15/19 11:20
			4		
			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **37078**

Date/Time: 04/15/19 13:53
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: John Builes
Delivery Priority:
Air Bill No.:

Please send report to: Kalei Stout
Address: 1089 N Canal Street
E-Mail: kalei.stout@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
621114-001	S	SW12	04/12/19 13:35	E300_CL	Chloride by EPA 300	04/12/19	05/10/19	KLS	CL	
621114-001	S	SW12	04/12/19 13:35	SW8021B	BTEX by EPA 8021B	04/12/19	04/26/19	KLS	BR4FBZ BZ BZME EBZ X	
621114-001	S	SW12	04/12/19 13:35	SW8015MOD_NM	TPH by SW8015 Mod	04/12/19	04/26/19	KLS	GRO-DRO PHCC10C28 PI	
621114-002	S	PH09	04/12/19 11:40	SW8015MOD_NM	TPH by SW8015 Mod	04/12/19	04/26/19	KLS	GRO-DRO PHCC10C28 PI	
621114-002	S	PH09	04/12/19 11:40	E300_CL	Chloride by EPA 300	04/12/19	05/10/19	KLS	CL	
621114-002	S	PH09	04/12/19 11:40	SW8021B	BTEX by EPA 8021B	04/12/19	04/26/19	KLS	BR4FBZ BZ BZME EBZ X	
621114-003	S	PH09A	04/12/19 11:55	E300_CL	Chloride by EPA 300	04/12/19	05/10/19	KLS	CL	
621114-003	S	PH09A	04/12/19 11:55	SW8015MOD_NM	TPH by SW8015 Mod	04/12/19	04/26/19	KLS	GRO-DRO PHCC10C28 PI	
621114-003	S	PH09A	04/12/19 11:55	SW8021B	BTEX by EPA 8021B	04/12/19	04/26/19	KLS	BR4FBZ BZ BZME EBZ X	
621114-004	S	PH10	04/12/19 12:40	E300_CL	Chloride by EPA 300	04/12/19	05/10/19	KLS	CL	
621114-004	S	PH10	04/12/19 12:40	SW8021B	BTEX by EPA 8021B	04/12/19	04/26/19	KLS	BR4FBZ BZ BZME EBZ X	
621114-004	S	PH10	04/12/19 12:40	SW8015MOD_NM	TPH by SW8015 Mod	04/12/19	04/26/19	KLS	GRO-DRO PHCC10C28 PI	
621114-005	S	PH10A	04/12/19 12:55	SW8015MOD_NM	TPH by SW8015 Mod	04/12/19	04/26/19	KLS	GRO-DRO PHCC10C28 PI	
621114-005	S	PH10A	04/12/19 12:55	E300_CL	Chloride by EPA 300	04/12/19	05/10/19	KLS	CL	
621114-005	S	PH10A	04/12/19 12:55	SW8021B	BTEX by EPA 8021B	04/12/19	04/26/19	KLS	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: John Builes

Date Relinquished: 04/15/2019

Received By: Brianna Teel

Date Received: 04/16/2019 12:29

Cooler Temperature:

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 37078

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: John Builes **Date Sent:** 04/15/2019 01:53 PM

Received By: Brianna Teel **Date Received:** 04/16/2019 12:29 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#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: 04/16/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/15/2019 11:20:00 AM

Work Order #: 621114

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)?	2.8
#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?	**Yes**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: John Builes Date: 04/15/2019

Checklist reviewed by: Kalei Stout Date: 04/15/2019

Analytical Report 621718

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV BS 005H

23-APR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

23-APR-19

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

Reference: XENCO Report No(s): **621718**
PLU CVX JV BS 005H
Project Address: ---

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) 621718. 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. 621718 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,

Kalei Stout
Midland Laboratory Director

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 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH13	S	04-15-19 13:30	6.5 ft	621718-001
PH13A	S	04-15-19 14:20	10.5 ft	621718-002
PH12	S	04-15-19 10:50	0.5 ft	621718-003
PH12A	S	04-15-19 11:15	4.5 ft	621718-004
PH11	S	04-15-19 09:15	4.5 ft	621718-005
PH11A	S	04-15-19 10:20	11 ft	621718-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 005H

Project ID: ---
Work Order Number(s): *621718*

Report Date: *23-APR-19*
Date Received: *04/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3086479 BTEX by EPA 8021B

Lab Sample ID 621718-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 621718-001, -002, -003, -004, -005, -006.

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

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

Certificate of Analysis Summary 621718

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 005H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Apr-19-19 12:30 pm
Report Date: 23-APR-19
Project Manager: Kalei Stout

Analysis Requested													
	Lab Id:	621718-001		621718-002		621718-003		621718-004		621718-005		621718-006	
	Field Id:	PH13		PH13A		PH12		PH12A		PH11		PH11A	
	Depth:	6.5- ft		10.5- ft		0.5- ft		4.5- ft		4.5- ft		11- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-15-19 13:30		Apr-15-19 14:20		Apr-15-19 10:50		Apr-15-19 11:15		Apr-15-19 09:15		Apr-15-19 10:20	
BTEX by EPA 8021B	***Extracted:***	Apr-19-19 12:45		Apr-19-19 12:45		Apr-19-19 12:45		Apr-19-19 12:45		Apr-19-19 12:45		Apr-19-19 12:45	
	Analyzed:	Apr-19-19 15:44		Apr-19-19 16:03		Apr-19-19 16:22		Apr-19-19 16:41		Apr-19-19 17:00		Apr-19-19 17:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00	
	Analyzed:	Apr-22-19 09:43		Apr-22-19 09:51		Apr-22-19 10:34		Apr-22-19 10:41		Apr-22-19 10:48		Apr-22-19 10:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		42.0	5.01	118	4.96	235	4.96	868	4.99	471	4.97	203	5.04
TPH by SW8015 Mod	***Extracted:***	Apr-20-19 11:00		Apr-20-19 11:00		Apr-20-19 11:00		Apr-20-19 11:00		Apr-20-19 11:00		Apr-20-19 11:00	
	Analyzed:	Apr-21-19 01:02		Apr-21-19 01:21		Apr-21-19 01:41		Apr-21-19 02:39		Apr-21-19 02:58		Apr-21-19 03:18	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9

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

Kalei Stout
Midland Laboratory Director

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-001	Date Collected:	04.15.19 13.30	Sample Depth:	6.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**42.0**	5.01	mg/kg	04.22.19 09.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.21.19 01.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.21.19 01.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.21.19 01.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.21.19 01.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.21.19 01.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.21.19 01.02	
o-Terphenyl	84-15-1	91	%	70-135	04.21.19 01.02	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-001	Date Collected:	04.15.19 13.30	Sample Depth:	6.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.19.19 15.44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.19.19 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.19.19 15.44	
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.19.19 15.44	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-002	Date Collected:	04.15.19 14.20	Sample Depth:	10.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**118**	4.96	mg/kg	04.22.19 09.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.21.19 01.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.21.19 01.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.21.19 01.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.21.19 01.21	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.21.19 01.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.21.19 01.21	
o-Terphenyl	84-15-1	94	%	70-135	04.21.19 01.21	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-002	Date Collected:	04.15.19 14.20	Sample Depth:	10.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.19.19 16.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.19.19 16.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	04.19.19 16.03	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.19.19 16.03	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-003	Date Collected:	04.15.19 10.50	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**235**	4.96	mg/kg	04.22.19 10.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.21.19 01.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.21.19 01.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.21.19 01.41	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.21.19 01.41	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	04.21.19 01.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.21.19 01.41	
o-Terphenyl	84-15-1	98	%	70-135	04.21.19 01.41	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-003	Date Collected:	04.15.19 10.50	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.19.19 16.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.19.19 16.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.19.19 16.22	
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.19.19 16.22	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-004	Date Collected:	04.15.19 11.15	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**868**	4.99	mg/kg	04.22.19 10.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.21.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.21.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.21.19 02.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.21.19 02.39	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.21.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.21.19 02.39	
o-Terphenyl	84-15-1	97	%	70-135	04.21.19 02.39	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-004	Date Collected:	04.15.19 11.15	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.19.19 16.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 16.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.19.19 16.41	
4-Bromofluorobenzene	460-00-4	105	%	70-130	04.19.19 16.41	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-005	Date Collected:	04.15.19 09.15	Sample Depth:	4.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**471**	4.97	mg/kg	04.22.19 10.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.21.19 02.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.21.19 02.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.21.19 02.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.21.19 02.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.21.19 02.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.21.19 02.58	
o-Terphenyl	84-15-1	98	%	70-135	04.21.19 02.58	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-005	Date Collected:	04.15.19 09.15	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.19.19 17.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 17.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	04.19.19 17.00	
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.19.19 17.00	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-006	Date Collected:	04.15.19 10.20	Sample Depth:	11 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**203**	5.04	mg/kg	04.22.19 10.56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.21.19 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.21.19 03.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	04.21.19 03.18	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.21.19 03.18	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	04.21.19 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.21.19 03.18	
o-Terphenyl	84-15-1	95	%	70-135	04.21.19 03.18	

Certificate of Analytical Results 621718

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	04.19.19 12.30
Lab Sample Id:	621718-006	Date Collected:	04.15.19 10.20	Sample Depth:	11 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 12.45	Basis:	Wet Weight
Seq Number:	3086479				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.19.19 17.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.19.19 17.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.19.19 17.19	
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.19.19 17.19	

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 621718

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Solid — Date Prep: 04.19.19
MB Sample Id: 7676199-1-BLK — LCS Sample Id: 7676199-1-BKS — LCSD Sample Id: 7676199-1-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	260	104	269	108	90-110	3	20	mg/kg	04.22.19 08:54	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621703-004 — MS Sample Id: 621703-004 S — MSD Sample Id: 621703-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	111	248	394	114	399	116	90-110	1	20	mg/kg	04.22.19 09:15	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621719-002 — MS Sample Id: 621719-002 S — MSD Sample Id: 621719-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.5	249	297	114	292	112	90-110	2	20	mg/kg	04.22.19 11:18	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3086489 — Matrix: Solid — Date Prep: 04.20.19
MB Sample Id: 7676241-1-BLK — LCS Sample Id: 7676241-1-BKS — LCSD Sample Id: 7676241-1-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)	<8.00	1000	940	94	939	94	70-135	0	20	mg/kg	04.20.19 21:27	
Diesel Range Organics (DRO)	<8.13	1000	964	96	959	96	70-135	1	20	mg/kg	04.20.19 21:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		118		121		70-135	%	04.20.19 21:27
o-Terphenyl	96		113		118		70-135	%	04.20.19 21:27

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 621718

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3086489 | Matrix: Soil | Date Prep: 04.20.19
Parent Sample Id: 621570-021 | MS Sample Id: 621570-021 S | MSD Sample Id: 621570-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	8.50	998	903	90	904	90	70-135	0	20	mg/kg	04.20.19 22:26	
Diesel Range Organics (DRO)	<8.11	998	903	90	910	91	70-135	1	20	mg/kg	04.20.19 22:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	04.20.19 22:26
o-Terphenyl	111		107		70-135	%	04.20.19 22:26

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3086479 | Matrix: Solid | Date Prep: 04.19.19
MB Sample Id: 7676251-1-BLK | LCS Sample Id: 7676251-1-BKS | LCSD Sample Id: 7676251-1-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	0.0999	100	0.0833	84	70-130	18	35	mg/kg	04.19.19 13:52	
Toluene	<0.000456	0.100	0.101	101	0.0845	85	70-130	18	35	mg/kg	04.19.19 13:52	
Ethylbenzene	<0.000565	0.100	0.0942	94	0.0782	79	70-130	19	35	mg/kg	04.19.19 13:52	
m,p-Xylenes	<0.00101	0.200	0.186	93	0.154	77	70-130	19	35	mg/kg	04.19.19 13:52	
o-Xylene	<0.000344	0.100	0.0950	95	0.0792	80	70-130	18	35	mg/kg	04.19.19 13:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		101		100		70-130	%	04.19.19 13:52
4-Bromofluorobenzene	86		96		94		70-130	%	04.19.19 13:52

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3086479 | Matrix: Soil | Date Prep: 04.19.19
Parent Sample Id: 621718-001 | MS Sample Id: 621718-001 S | MSD Sample Id: 621718-001 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	0.0714	72	0.0848	85	70-130	17	35	mg/kg	04.19.19 14:30	
Toluene	<0.000455	0.0998	0.0714	72	0.0854	85	70-130	18	35	mg/kg	04.19.19 14:30	
Ethylbenzene	<0.000564	0.0998	0.0649	65	0.0785	79	70-130	19	35	mg/kg	04.19.19 14:30	X
m,p-Xylenes	<0.00101	0.200	0.128	64	0.154	77	70-130	18	35	mg/kg	04.19.19 14:30	X
o-Xylene	<0.000344	0.0998	0.0655	66	0.0791	79	70-130	19	35	mg/kg	04.19.19 14:30	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		101		70-130	%	04.19.19 14:30
4-Bromofluorobenzene	95		97		70-130	%	04.19.19 14:30

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

Work Order No: 602178

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E. Greene Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	432.704.5178 Email:		abyers@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JV BS 005H	Turn Around	
Project Number:	-	Routine ☐	
P.O. Number:	2RP-2526	Rush: someday	
Sampler's Name:	Anna Byers	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	(Yes) No	
Temperature (°C):	4	Thermometer ID	TN4007	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:	6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH13	S	4/15/19	1330	6.5'	1			
PH13A	S		1420	10.5'	1			
PH12	S		1050	0.5'	1			
PH12A	S		1115	4.5'	1			
PH11	S		0915	4.5'	1			
PH11A	S	↓	1020	11'	1			

04/16/19

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
1 Anna Byers		04/17/19 7:10	2		04/17/19 16:30
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/19/2019 12:30:00 PM

Work Order #: 621718

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 *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)?	**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: 04/19/2019

Brianna Teel

Checklist reviewed by: Kalei Stout Date: 04/19/2019

Kalei Stout

Analytical Report 621719

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV BS 005H

23-APR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

23-APR-19

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

Reference: XENCO Report No(s): **621719**
PLU CVX JV BS 005H
Project Address: ---

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) 621719. 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. 621719 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,

Kalei Stout
Midland Laboratory Director

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 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH14	S	04-15-19 15:10	0.5 ft	621719-001
PH14A	S	04-15-19 15:25	1.0 ft	621719-002
PH15	S	04-15-19 16:00	0.5 ft	621719-003
PH15A	S	04-15-19 16:05	1.0 ft	621719-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 005H

Project ID: ---
Work Order Number(s): *621719*

Report Date: *23-APR-19*
Date Received: *04/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3086463 Chloride by EPA 300

Lab Sample ID 621719-002 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: 621719-001, -002, -003, -004.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3086496 BTEX by EPA 8021B

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

Certificate of Analysis Summary 621719

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 005H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Apr-19-19 12:00 pm
Report Date: 23-APR-19
Project Manager: Kalei Stout

Analysis Requested													
	Lab Id:	621719-001		621719-002		621719-003		621719-004					
	Field Id:	PH14		PH14A		PH15		PH15A					
	Depth:	0.5- ft		1.0- ft		0.5- ft		1.0- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Apr-15-19 15:10		Apr-15-19 15:25		Apr-15-19 16:00		Apr-15-19 16:05					
BTEX by EPA 8021B	***Extracted:***	Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15		Apr-19-19 13:15					
	Analyzed:	Apr-19-19 15:59		Apr-19-19 16:18		Apr-19-19 16:37		Apr-19-19 16:56					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00400	0.00400	<0.00403	0.00403				
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00		Apr-19-19 17:00					
	Analyzed:	Apr-22-19 11:03		Apr-22-19 11:10		Apr-22-19 11:32		Apr-22-19 11:40					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		83.3	4.98	12.5	4.98	48.0	5.00	51.7	5.01				
TPH by SW8015 Mod	***Extracted:***	Apr-20-19 11:00		Apr-19-19 17:00		Apr-19-19 16:00		Apr-19-19 16:00					
	Analyzed:	Apr-21-19 03:37		Apr-20-19 05:22		Apr-19-19 19:47		Apr-19-19 20:06					
	Units/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				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				

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

Kalei Stout
Midland Laboratory Director

Final 1.000

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-001	Date Collected:	04.15.19 15.10	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**83.3**	4.98	mg/kg	04.22.19 11.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.20.19 11.00	Basis:	Wet Weight
Seq Number:	3086489				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.21.19 03.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.21.19 03.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.21.19 03.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.21.19 03.37	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.21.19 03.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.21.19 03.37	
o-Terphenyl	84-15-1	94	%	70-135	04.21.19 03.37	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-001	Date Collected:	04.15.19 15.10	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.19.19 15.59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.19.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	04.19.19 15.59	
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.19.19 15.59	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-002	Date Collected:	04.15.19 15.25	Sample Depth:	1.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.5**	4.98	mg/kg	04.22.19 11.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086485				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.20.19 05.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.20.19 05.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.20.19 05.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.20.19 05.22	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.20.19 05.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	04.20.19 05.22	
o-Terphenyl	84-15-1	86	%	70-135	04.20.19 05.22	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-002	Date Collected:	04.15.19 15.25	Sample Depth:	1.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.19.19 16.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 16.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	04.19.19 16.18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.19.19 16.18	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-003	Date Collected:	04.15.19 16.00	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**48.0**	5.00	mg/kg	04.22.19 11.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.19.19 19.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.19.19 19.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.19.19 19.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.19.19 19.47	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.19.19 19.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.19.19 19.47	
o-Terphenyl	84-15-1	93	%	70-135	04.19.19 19.47	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-003	Date Collected:	04.15.19 16.00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.19.19 16.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.19.19 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	04.19.19 16.37	
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.19.19 16.37	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-004	Date Collected:	04.15.19 16.05	Sample Depth:	1.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	04.19.19 17.00	Basis:	Wet Weight
Seq Number:	3086463				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.7**	5.01	mg/kg	04.22.19 11.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.19.19 16.00	Basis:	Wet Weight
Seq Number:	3086484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.19.19 20.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.19.19 20.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	04.19.19 20.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.19.19 20.06	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	04.19.19 20.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	04.19.19 20.06	
o-Terphenyl	84-15-1	90	%	70-135	04.19.19 20.06	

Certificate of Analytical Results 621719

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 005H

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	04.19.19 12.00
Lab Sample Id:	621719-004	Date Collected:	04.15.19 16.05	Sample Depth:	1.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.19.19 13.15	Basis:	Wet Weight
Seq Number:	3086496				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.19.19 16.56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.19.19 16.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	04.19.19 16.56	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.19.19 16.56	

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 621719

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Solid — Date Prep: 04.19.19
MB Sample Id: 7676199-1-BLK — LCS Sample Id: 7676199-1-BKS — LCSD Sample Id: 7676199-1-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	260	104	269	108	90-110	3	20	mg/kg	04.22.19 08:54	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621703-004 — MS Sample Id: 621703-004 S — MSD Sample Id: 621703-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	111	248	394	114	399	116	90-110	1	20	mg/kg	04.22.19 09:15	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3086463 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621719-002 — MS Sample Id: 621719-002 S — MSD Sample Id: 621719-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.5	249	297	114	292	112	90-110	2	20	mg/kg	04.22.19 11:18	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3086484 — Matrix: Solid — Date Prep: 04.19.19
MB Sample Id: 7676238-1-BLK — LCS Sample Id: 7676238-1-BKS — LCSD Sample Id: 7676238-1-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)	<8.00	1000	1010	101	1050	105	70-135	4	20	mg/kg	04.19.19 11:40	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	1090	109	70-135	2	20	mg/kg	04.19.19 11:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		127		129		70-135	%	04.19.19 11:40
o-Terphenyl	101		122		127		70-135	%	04.19.19 11:40

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

QC Summary 621719

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3086485 | Matrix: Solid | Date Prep: 04.19.19
MB Sample Id: 7676239-1-BLK | LCS Sample Id: 7676239-1-BKS | LCSD Sample Id: 7676239-1-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)	<8.00	1000	1050	105	1010	101	70-135	4	20	mg/kg	04.19.19 21:05	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1070	107	70-135	5	20	mg/kg	04.19.19 21:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		123		122		70-135	%	04.19.19 21:05
o-Terphenyl	103		118		126		70-135	%	04.19.19 21:05

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3086489 | Matrix: Solid | Date Prep: 04.20.19
MB Sample Id: 7676241-1-BLK | LCS Sample Id: 7676241-1-BKS | LCSD Sample Id: 7676241-1-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)	<8.00	1000	940	94	939	94	70-135	0	20	mg/kg	04.20.19 21:27	
Diesel Range Organics (DRO)	<8.13	1000	964	96	959	96	70-135	1	20	mg/kg	04.20.19 21:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		118		121		70-135	%	04.20.19 21:27
o-Terphenyl	96		113		118		70-135	%	04.20.19 21:27

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3086484 | Matrix: Soil | Date Prep: 04.19.19
Parent Sample Id: 621515-001 | MS Sample Id: 621515-001 S | MSD Sample Id: 621515-001 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)	<7.99	999	883	88	888	89	70-135	1	20	mg/kg	04.19.19 12:39	
Diesel Range Organics (DRO)	<8.12	999	905	91	917	92	70-135	1	20	mg/kg	04.19.19 12:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		119		70-135	%	04.19.19 12:39
o-Terphenyl	111		113		70-135	%	04.19.19 12:39

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

QC Summary 621719

LT Environmental, Inc.

PLU CVX JV BS 005H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3086485 — Matrix: Soil — Date Prep: 04.19.19
Parent Sample Id: 621574-001 — MS Sample Id: 621574-001 S — MSD Sample Id: 621574-001 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)	8.24	999	864	86	864	86	70-135	0	20	mg/kg	04.19.19 22:04	
Diesel Range Organics (DRO)	<8.12	999	905	91	897	90	70-135	1	20	mg/kg	04.19.19 22:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		111		70-135	%	04.19.19 22:04
o-Terphenyl	102		105		70-135	%	04.19.19 22:04

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3086489 — Matrix: Soil — Date Prep: 04.20.19
Parent Sample Id: 621570-021 — MS Sample Id: 621570-021 S — MSD Sample Id: 621570-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	8.50	998	903	90	904	90	70-135	0	20	mg/kg	04.20.19 22:26	
Diesel Range Organics (DRO)	<8.11	998	903	90	910	91	70-135	1	20	mg/kg	04.20.19 22:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	04.20.19 22:26
o-Terphenyl	111		107		70-135	%	04.20.19 22:26

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3086496 — Matrix: Solid — Date Prep: 04.19.19
MB Sample Id: 7676257-1-BLK — LCS Sample Id: 7676257-1-BKS — LCSD Sample Id: 7676257-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0914	92	0.0932	93	70-130	2	35	mg/kg	04.19.19 14:07	
Toluene	<0.00199	0.0996	0.0968	97	0.0983	98	70-130	2	35	mg/kg	04.19.19 14:07	
Ethylbenzene	<0.00199	0.0996	0.103	103	0.105	105	70-130	2	35	mg/kg	04.19.19 14:07	
m,p-Xylenes	<0.00101	0.199	0.209	105	0.212	106	70-130	1	35	mg/kg	04.19.19 14:07	
o-Xylene	<0.00199	0.0996	0.106	106	0.108	108	70-130	2	35	mg/kg	04.19.19 14:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		95		95		70-130	%	04.19.19 14:07
4-Bromofluorobenzene	111		108		108		70-130	%	04.19.19 14:07

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 621719

LT Environmental, Inc.

PLU CVX JV BS 005H

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

Seq Number: 3086496 Matrix: Soil Date Prep: 04.19.19

Parent Sample Id: 621719-001 MS Sample Id: 621719-001 S MSD Sample Id: 621719-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.0813	82	0.0829	83	70-130	2	35	mg/kg	04.19.19 14:45	
Toluene	0.000543	0.0994	0.0865	86	0.0874	87	70-130	1	35	mg/kg	04.19.19 14:45	
Ethylbenzene	<0.000561	0.0994	0.0917	92	0.0925	93	70-130	1	35	mg/kg	04.19.19 14:45	
m,p-Xylenes	<0.00101	0.199	0.187	94	0.187	94	70-130	0	35	mg/kg	04.19.19 14:45	
o-Xylene	0.000413	0.0994	0.0950	95	0.0954	95	70-130	0	35	mg/kg	04.19.19 14:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		96		70-130	%	04.19.19 14:45
4-Bromofluorobenzene	113		112		70-130	%	04.19.19 14:45

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	

Chain of Custody

Work Order No: 6021719

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

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	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:	432.704.5178 Email:		abyers@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JV BS #005H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	2RP-4775 + 2RP-4779	Rush: same day	
Sampler's Name:	Anna Byers	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	(Yes) No	
Temperature (°C):	4	Thermometer ID	T NM001	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:	4	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH14	S	4/15/19	1510	0.5'	1			
PH14A	S		1525	1.0'	1			
PH15	S		1600	0.5'	1			
PH15A	S	↓	1605	1.0'	1			

4/16/19

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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		04/17/2019 7:00	3		04/17/2019 16:30
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/19/2019 12:00:00 PM

Work Order #: 621719

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 *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)?	**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: 04/19/2019

Brianna Teel

Checklist reviewed by: Kalei Stout Date: 04/19/2019

Kalei Stout

Analytical Report 640666

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Big Sinks 25 Federal Battery

2RP-2526

18-NOV-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

18-NOV-19

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

Reference: XENCO Report No(s): **640666**
PLU Big Sinks 25 Federal Battery
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) 640666. 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. 640666 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 640666

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS09A	S	10-21-19 10:20	7 ft	640666-001
SW12	S	10-21-19 10:50	1 - 3 ft	640666-002

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 25 Federal Battery

Project ID: *2RP-2526*
Work Order Number(s): *640666*

Report Date: *18-NOV-19*
Date Received: *10/22/2019*

Sample receipt non conformances and comments:

Per clients email, corrected sample 002 name from SW11 to SW12. NEW VERSION GENERATED JK 11/18/19

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105173 Chloride by EPA 300
Lab Sample ID 640666-001 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: 640666-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3105180 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640666

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 2RP-2526
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-22-19 10:50 am
Report Date: 18-NOV-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640666-001		640666-002					
	Field Id:	FS09A		SW12					
	Depth:	7- ft		1-3 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-21-19 10:20		Oct-21-19 10:50					
BTEX by EPA 8021B	***Extracted:***	Oct-22-19 15:10		Oct-22-19 15:10					
	Analyzed:	Oct-23-19 02:36		Oct-23-19 02:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.000990	0.000990	<0.00100	0.00100				
Toluene		<0.000990	0.000990	<0.00100	0.00100				
Ethylbenzene		<0.000990	0.000990	<0.00100	0.00100				
m,p-Xylenes		<0.00198	0.00198	<0.00200	0.00200				
o-Xylene		<0.000990	0.000990	<0.00100	0.00100				
Total Xylenes		<0.000990	0.000990	<0.00100	0.00100				
Total BTEX		<0.000990	0.000990	<0.00100	0.00100				
Chloride by EPA 300	***Extracted:***	Oct-22-19 16:10		Oct-22-19 16:10					
	Analyzed:	Oct-22-19 18:43		Oct-22-19 19:02					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		1210	49.9	695	50.0				
TPH by SW8015 Mod	***Extracted:***	Oct-22-19 14:10		Oct-22-19 14:10					
	Analyzed:	Oct-22-19 23:22		Oct-22-19 23:22					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.2	50.2				
Diesel Range Organics (DRO)		<50.3	50.3	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.2	50.2				
Total GRO-DRO		<50.3	50.3	<50.2	50.2				
Total TPH		<50.3	50.3	<50.2	50.2				

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640666

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS09A**	Matrix:	Soil	Date Received:	10.22.19 10.50
Lab Sample Id:	640666-001	Date Collected:	10.21.19 10.20	Sample Depth:	7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 16.10	Basis:	Wet Weight
Seq Number:	3105173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1210**	49.9	mg/kg	10.22.19 18.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 14.10	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.22.19 23.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.22.19 23.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.22.19 23.22	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.22.19 23.22	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.22.19 23.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.22.19 23.22	
o-Terphenyl	84-15-1	90	%	70-135	10.22.19 23.22	

Certificate of Analytical Results 640666

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS09A**	Matrix:	Soil	Date Received:	10.22.19 10.50
Lab Sample Id:	640666-001	Date Collected:	10.21.19 10.20	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 15.10	Basis:	Wet Weight
Seq Number:	3105180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1
Toluene	108-88-3	<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1
Ethylbenzene	100-41-4	<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1
m,p-Xylenes	179601-23-1	<0.00198	0.00198	mg/kg	10.23.19 02.36	U	1
o-Xylene	95-47-6	<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1
Total Xylenes	1330-20-7	<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1
Total BTEX		<0.000990	0.000990	mg/kg	10.23.19 02.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.23.19 02.36	
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.23.19 02.36	

Certificate of Analytical Results 640666

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	10.22.19 10.50
Lab Sample Id:	640666-002	Date Collected:	10.21.19 10.50	Sample Depth:	1 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 16.10	Basis:	Wet Weight
Seq Number:	3105173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**695**	50.0	mg/kg	10.22.19 19.02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	10.22.19 14.10	Basis:	Wet Weight
Seq Number:	3105101				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.22.19 23.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.22.19 23.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.22.19 23.22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.22.19 23.22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.22.19 23.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	10.22.19 23.22	
o-Terphenyl	84-15-1	87	%	70-135	10.22.19 23.22	

Certificate of Analytical Results 640666

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	10.22.19 10.50
Lab Sample Id:	640666-002	Date Collected:	10.21.19 10.50	Sample Depth:	1 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.22.19 15.10	Basis:	Wet Weight
Seq Number:	3105180				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1
Toluene	108-88-3	<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1
Ethylbenzene	100-41-4	<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	10.23.19 02.56	U	1
o-Xylene	95-47-6	<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1
Total Xylenes	1330-20-7	<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1
Total BTEX		<0.00100	0.00100	mg/kg	10.23.19 02.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.23.19 02.56	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.23.19 02.56	

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 640666

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105173 — Matrix: Solid — Date Prep: 10.22.19
MB Sample Id: 7688678-1-BLK — LCS Sample Id: 7688678-1-BKS — LCSD Sample Id: 7688678-1-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	270	108	269	108	90-110	0	20	mg/kg	10.22.19 16:43	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105173 — Matrix: Solid — Date Prep: 10.22.19
Parent Sample Id: 640664-001 — MS Sample Id: 640664-001 S — MSD Sample Id: 640664-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.5	199	247	112	246	111	90-110	0	20	mg/kg	10.22.19 17:03	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105173 — Matrix: Solid — Date Prep: 10.22.19
Parent Sample Id: 640666-001 — MS Sample Id: 640666-001 S — MSD Sample Id: 640666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1210	996	2490	129	2520	131	90-110	1	20	mg/kg	10.22.19 18:49	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105101 — Matrix: Solid — Date Prep: 10.22.19
MB Sample Id: 7688651-1-BLK — LCS Sample Id: 7688651-1-BKS — LCSD Sample Id: 7688651-1-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	889	89	875	88	70-135	2	35	mg/kg	10.22.19 22:02	
Diesel Range Organics (DRO)	<50.0	1000	826	83	807	81	70-135	2	35	mg/kg	10.22.19 22:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		93		92		70-135	%	10.22.19 22:02
o-Terphenyl	78		88		87		70-135	%	10.22.19 22:02

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105101 — Matrix: Solid — Date Prep: 10.22.19
MB Sample Id: 7688651-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.22.19 22:02	

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 640666

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105101 — Matrix: Soil — Date Prep: 10.22.19
Parent Sample Id: 640662-011 — MS Sample Id: 640662-011 S — MSD Sample Id: 640662-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	832	83	790	79	70-135	5	35	mg/kg	10.22.19 22:42	
Diesel Range Organics (DRO)	18.0	1000	726	71	713	70	70-135	2	35	mg/kg	10.22.19 22:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		99		70-135	%	10.22.19 22:42
o-Terphenyl	97		96		70-135	%	10.22.19 22:42

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105180 — Matrix: Solid — Date Prep: 10.22.19
MB Sample Id: 7688753-1-BLK — LCS Sample Id: 7688753-1-BKS — LCSD Sample Id: 7688753-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0927	93	0.0921	92	70-130	1	35	mg/kg	10.22.19 17:03	
Toluene	<0.00100	0.100	0.0898	90	0.0891	89	70-130	1	35	mg/kg	10.22.19 17:03	
Ethylbenzene	<0.00100	0.100	0.0923	92	0.0913	91	71-129	1	35	mg/kg	10.22.19 17:03	
m,p-Xylenes	<0.00200	0.200	0.185	93	0.183	92	70-135	1	35	mg/kg	10.22.19 17:03	
o-Xylene	<0.00100	0.100	0.0922	92	0.0922	92	71-133	0	35	mg/kg	10.22.19 17:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		102		70-130	%	10.22.19 17:03
4-Bromofluorobenzene	107		104		108		70-130	%	10.22.19 17:03

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105180 — Matrix: Soil — Date Prep: 10.22.19
Parent Sample Id: 640664-001 — MS Sample Id: 640664-001 S — MSD Sample Id: 640664-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000990	0.0990	0.0949	96	0.0951	95	70-130	0	35	mg/kg	10.22.19 17:44	
Toluene	<0.000990	0.0990	0.0912	92	0.0897	90	70-130	2	35	mg/kg	10.22.19 17:44	
Ethylbenzene	<0.000990	0.0990	0.0931	94	0.0905	91	71-129	3	35	mg/kg	10.22.19 17:44	
m,p-Xylenes	<0.00198	0.198	0.187	94	0.181	91	70-135	3	35	mg/kg	10.22.19 17:44	
o-Xylene	<0.000990	0.0990	0.0939	95	0.0915	92	71-133	3	35	mg/kg	10.22.19 17:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		70-130	%	10.22.19 17:44
4-Bromofluorobenzene	110		111		70-130	%	10.22.19 17:44

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

Chain of Custody

Work Order No: 4010616

XENCO LABORATORIES

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

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

Work Order Comments

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

Project Name:	PLU Big Sinks 25 Federal Battery	Turn Around	
Project Number:	2RP-2526	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.0	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:	2	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS09A	S	10.21.19	1020	7'		X	X	X
SW11	S	10.21.19	1050	1-3'		X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
Spencer Lo	Anna Byers	10/22/19 @ 1005	2 Anna Byers	Costilla	10/22/19 10:50
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/22/2019 10:50:00 AM

Work Order #: 640666

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**Yes**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**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: 10/22/2019

Checklist reviewed by: Jessica Kramer Date: 10/22/2019

Jessica Kramer

Analytical Report 640781

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Big Sinks 25 Federal Battery

2RP-4398

28-OCT-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 (2017-142), North Carolina (681)

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-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)

28-OCT-19

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

Reference: XENCO Report No(s): **640781**
PLU Big Sinks 25 Federal Battery
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) 640781. 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. 640781 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 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	10-22-19 13:35	1 ft	640781-001
PH01A	S	10-22-19 13:40	2 ft	640781-002
PH01B	S	10-22-19 13:45	3 ft	640781-003
PH01C	S	10-22-19 13:50	4 ft	640781-004
PH01D	S	10-22-19 13:55	5 ft	640781-005
PH02	S	10-22-19 14:10	1 ft	640781-006
PH02A	S	10-22-19 14:15	2 ft	640781-007
PH02B	S	10-22-19 14:20	3 ft	640781-008
PH02C	S	10-22-19 14:25	4 ft	640781-009
PH02D	S	10-22-19 14:30	5 ft	640781-010
BH01	S	10-22-19 16:20	1 ft	640781-011
BH01A	S	10-22-19 16:25	2 ft	640781-012
BH01B	S	10-22-19 16:30	3 ft	640781-013
BH01C	S	10-22-19 16:35	4 ft	640781-014
BH01D	S	10-22-19 16:40	5 ft	640781-015
FS01	S	10-22-19 12:40	5 ft	640781-016
FS02	S	10-22-19 12:45	5 ft	640781-017
SW03	S	10-22-19 12:50	1 - 5 ft	640781-018
SW01	S	10-22-19 12:55	1 - 5 ft	640781-019
SW02	S	10-22-19 13:00	1 - 5 ft	640781-020
SW04	S	10-22-19 13:05	1 - 5 ft	640781-021

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Big Sinks 25 Federal Battery

Project ID: *2RP-4398*
Work Order Number(s): *640781*

Report Date: *28-OCT-19*
Date Received: *10/23/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105377 Chloride by EPA 300
Lab Sample ID 640781-020 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: 640781-009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3105530 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3105532 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 640781

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 2RP-4398
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Oct-23-19 09:12 am
Report Date: 28-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640781-001		640781-002		640781-003		640781-004		640781-005		640781-006	
	Field Id:	PH01		PH01A		PH01B		PH01C		PH01D		PH02	
	Depth:	1- ft		2- ft		3- ft		4- ft		5- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 13:35		Oct-22-19 13:40		Oct-22-19 13:45		Oct-22-19 13:50		Oct-22-19 13:55		Oct-22-19 14:10	
BTEX by EPA 8021B SUB: T104704400-19-19	*Extracted:*	Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30	
	Analyzed:	Oct-27-19 14:02		Oct-27-19 14:23		Oct-27-19 14:43		Oct-27-19 15:03		Oct-27-19 15:23		Oct-27-19 15:43	
	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	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401	<0.00403	0.00403	<0.00399	0.00399	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	*Extracted:*	Oct-24-19 14:00		Oct-24-19 14:00		Oct-24-19 14:00		Oct-24-19 14:00		Oct-24-19 14:00		Oct-24-19 14:00	
	Analyzed:	Oct-24-19 20:01		Oct-24-19 20:16		Oct-24-19 20:21		Oct-24-19 20:26		Oct-24-19 20:31		Oct-24-19 20:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.97	4.97	<4.97	4.97	<5.01	5.01	8.30	5.00	7.72	5.00	<4.99	4.99
TPH by SW8015 Mod SUB: T104704400-19-19	*Extracted:*	Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00	
	Analyzed:	Oct-24-19 13:13		Oct-24-19 14:16		Oct-24-19 14:37		Oct-24-19 14:58		Oct-24-19 15:32		Oct-24-19 15:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9
Total TPH		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.9	49.9

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 640781

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 2RP-4398
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Oct-23-19 09:12 am
Report Date: 28-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640781-007		640781-008		640781-009		640781-010		640781-011		640781-012	
	Field Id:	PH02A		PH02B		PH02C		PH02D		BH01		BH01A	
	Depth:	2- ft		3- ft		4- ft		5- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 14:15		Oct-22-19 14:20		Oct-22-19 14:25		Oct-22-19 14:30		Oct-22-19 16:20		Oct-22-19 16:25	
BTEX by EPA 8021B SUB: T104704400-19-19	*Extracted:*	Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30	
	Analyzed:	Oct-27-19 16:03		Oct-27-19 16:23		Oct-27-19 16:43		Oct-27-19 17:03		Oct-27-19 18:22		Oct-27-19 18:42	
	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	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00404	0.00404	<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-19-19	*Extracted:*	Oct-24-19 14:00		Oct-24-19 14:00		Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30	
	Analyzed:	Oct-24-19 20:41		Oct-24-19 20:46		Oct-24-19 21:16		Oct-24-19 21:31		Oct-24-19 21:36		Oct-24-19 21:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		5.08	4.96	<5.04	5.04	23.4	5.00	29.4	5.03	<5.05	5.05	<5.00	5.00
TPH by SW8015 Mod SUB: T104704400-19-19	*Extracted:*	Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00	
	Analyzed:	Oct-24-19 16:14		Oct-24-19 16:35		Oct-24-19 16:56		Oct-24-19 17:16		Oct-24-19 17:58		Oct-24-19 18:19	
	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	<49.8	49.8	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 640781

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 2RP-4398
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Oct-23-19 09:12 am
Report Date: 28-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640781-013		640781-014		640781-015		640781-016		640781-017		640781-018	
	Field Id:	BH01B		BH01C		BH01D		FS01		FS02		SW03	
	Depth:	3- ft		4- ft		5- ft		5- ft		5- ft		1-5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 16:30		Oct-22-19 16:35		Oct-22-19 16:40		Oct-22-19 12:40		Oct-22-19 12:45		Oct-22-19 12:50	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 10:30	
	Analyzed:	Oct-27-19 19:02		Oct-27-19 19:22		Oct-27-19 19:42		Oct-27-19 20:02		Oct-27-19 20:23		Oct-27-19 20:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00402	0.00402	<0.00396	0.00396	<0.00400	0.00400	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30	
	Analyzed:	Oct-24-19 21:46		Oct-24-19 22:01		Oct-24-19 22:06		Oct-24-19 22:11		Oct-24-19 22:16		Oct-24-19 22:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		62.3	4.99	40.3	5.02	18.1	4.97	96.6	4.95	1000	4.95	1030	4.95
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00	
	Analyzed:	Oct-24-19 18:41		Oct-24-19 19:02		Oct-24-19 19:22		Oct-24-19 19:43		Oct-24-19 20:04		Oct-24-19 20:25	
	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	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0	<49.9	49.9

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Jessica Kramer
Project Assistant

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Certificate of Analysis Summary 640781

LT Environmental, Inc., Arvada, CO

Project Name: PLU Big Sinks 25 Federal Battery

Project Id: 2RP-4398
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Oct-23-19 09:12 am
Report Date: 28-OCT-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	640781-019		640781-020		640781-021					
	Field Id:	SW01		SW02		SW04					
	Depth:	1-5 ft		1-5 ft		1-5 ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Oct-22-19 12:55		Oct-22-19 13:00		Oct-22-19 13:05					
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-27-19 10:30		Oct-27-19 10:30		Oct-27-19 11:00					
	Analyzed:	Oct-27-19 21:03		Oct-27-19 21:23		Oct-28-19 00:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-24-19 14:30		Oct-24-19 14:30		Oct-24-19 14:30					
	Analyzed:	Oct-24-19 22:41		Oct-24-19 22:26		Oct-24-19 22:46					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		4430	25.2	633	4.99	572	4.98				
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00					
	Analyzed:	Oct-24-19 20:46		Oct-24-19 21:07		Oct-24-19 20:46					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.0	50.0				
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<50.0	50.0				
Total TPH		<50.0	50.0	<49.9	49.9	<50.0	50.0				

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-001	Date Collected:	10.22.19 13.35	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	10.24.19 20.01	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 13.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 13.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 13.13	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 13.13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 13.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.24.19 13.13	
o-Terphenyl	84-15-1	103	%	70-135	10.24.19 13.13	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-001	Date Collected:	10.22.19 13.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.27.19 14.02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.27.19 14.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	10.27.19 14.02	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.27.19 14.02	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-002	Date Collected:	10.22.19 13.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	10.24.19 20.16	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 14.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 14.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 14.16	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 14.16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 14.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.24.19 14.16	
o-Terphenyl	84-15-1	101	%	70-135	10.24.19 14.16	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-002	Date Collected:	10.22.19 13.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 14.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 14.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.27.19 14.23	
4-Bromofluorobenzene	460-00-4	98	%	70-130	10.27.19 14.23	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-003	Date Collected:	10.22.19 13.45	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	10.24.19 20.21	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 14.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 14.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 14.37	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 14.37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.24.19 14.37	
o-Terphenyl	84-15-1	100	%	70-135	10.24.19 14.37	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-003	Date Collected:	10.22.19 13.45	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.27.19 14.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 14.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	10.27.19 14.43	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 14.43	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-004	Date Collected:	10.22.19 13.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.30**	5.00	mg/kg	10.24.19 20.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 14.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 14.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 14.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 14.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 14.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 14.58	
o-Terphenyl	84-15-1	104	%	70-135	10.24.19 14.58	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-004	Date Collected:	10.22.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.27.19 15.03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.19 15.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	10.27.19 15.03	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.27.19 15.03	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-005	Date Collected:	10.22.19 13.55	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.72**	5.00	mg/kg	10.24.19 20.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 15.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 15.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 15.32	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 15.32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 15.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.24.19 15.32	
o-Terphenyl	84-15-1	103	%	70-135	10.24.19 15.32	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH01D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-005	Date Collected:	10.22.19 13.55	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.19 15.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 15.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 15.23	
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.27.19 15.23	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-006	Date Collected:	10.22.19 14.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	10.24.19 20.36	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 15.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 15.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 15.53	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 15.53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 15.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.24.19 15.53	
o-Terphenyl	84-15-1	99	%	70-135	10.24.19 15.53	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-006	Date Collected:	10.22.19 14.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.27.19 15.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 15.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	10.27.19 15.43	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.27.19 15.43	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-007	Date Collected:	10.22.19 14.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.08**	4.96	mg/kg	10.24.19 20.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 16.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 16.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 16.14	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 16.14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 16.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.24.19 16.14	
o-Terphenyl	84-15-1	100	%	70-135	10.24.19 16.14	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-007	Date Collected:	10.22.19 14.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.27.19 16.03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.27.19 16.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	10.27.19 16.03	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 16.03	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-008	Date Collected:	10.22.19 14.20	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105376			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	10.24.19 20.46	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 16.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 16.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 16.35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 16.35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 16.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.24.19 16.35	
o-Terphenyl	84-15-1	102	%	70-135	10.24.19 16.35	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-008	Date Collected:	10.22.19 14.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 16.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 16.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	10.27.19 16.23	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.27.19 16.23	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-009	Date Collected:	10.22.19 14.25	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.4**	5.00	mg/kg	10.24.19 21.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 16.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 16.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 16.56	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 16.56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 16.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.24.19 16.56	
o-Terphenyl	84-15-1	102	%	70-135	10.24.19 16.56	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-009	Date Collected:	10.22.19 14.25	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.27.19 16.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.19 16.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.27.19 16.43	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.27.19 16.43	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**PH02D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-010	Date Collected:	10.22.19 14.30	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.4**	5.03	mg/kg	10.24.19 21.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 17.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.24.19 17.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.24.19 17.16	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.24.19 17.16	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.24.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.24.19 17.16	
o-Terphenyl	84-15-1	101	%	70-135	10.24.19 17.16	

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Sample Id:	**PH02D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-010	Date Collected:	10.22.19 14.30	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.19 17.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 17.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	10.27.19 17.03	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.27.19 17.03	

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PLU Big Sinks 25 Federal Battery

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-011	Date Collected:	10.22.19 16.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	10.24.19 21.36	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 17.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 17.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 17.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 17.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 17.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.24.19 17.58	
o-Terphenyl	84-15-1	104	%	70-135	10.24.19 17.58	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-011	Date Collected:	10.22.19 16.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 18.22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 18.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	10.27.19 18.22	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.27.19 18.22	

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Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-012	Date Collected:	10.22.19 16.25	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.24.19 21.41	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 18.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 18.19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 18.19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 18.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.24.19 18.19	
o-Terphenyl	84-15-1	101	%	70-135	10.24.19 18.19	

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Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-012	Date Collected:	10.22.19 16.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 18.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	10.27.19 18.42	
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.27.19 18.42	

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Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-013	Date Collected:	10.22.19 16.30	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.3**	4.99	mg/kg	10.24.19 21.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 18.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 18.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 18.41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 18.41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 18.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 18.41	
o-Terphenyl	84-15-1	105	%	70-135	10.24.19 18.41	

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Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-013	Date Collected:	10.22.19 16.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.27.19 19.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.19 19.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 19.02	
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.27.19 19.02	

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Sample Id:	**BH01C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-014	Date Collected:	10.22.19 16.35	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.3**	5.02	mg/kg	10.24.19 22.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 19.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 19.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 19.02	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 19.02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 19.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 19.02	
o-Terphenyl	84-15-1	103	%	70-135	10.24.19 19.02	

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Sample Id:	**BH01C**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-014	Date Collected:	10.22.19 16.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 19.22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 19.22	
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.27.19 19.22	

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Sample Id:	**BH01D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-015	Date Collected:	10.22.19 16.40	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.1**	4.97	mg/kg	10.24.19 22.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 19.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 19.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 19.22	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 19.22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 19.22	
o-Terphenyl	84-15-1	105	%	70-135	10.24.19 19.22	

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Sample Id:	**BH01D**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-015	Date Collected:	10.22.19 16.40	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.27.19 19.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.27.19 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.27.19 19.42	
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.27.19 19.42	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-016	Date Collected:	10.22.19 12.40	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**96.6**	4.95	mg/kg	10.24.19 22.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 19.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.24.19 19.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.24.19 19.43	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.24.19 19.43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.24.19 19.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.24.19 19.43	
o-Terphenyl	84-15-1	107	%	70-135	10.24.19 19.43	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-016	Date Collected:	10.22.19 12.40	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.27.19 20.02	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.27.19 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	10.27.19 20.02	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 20.02	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-017	Date Collected:	10.22.19 12.45	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1000**	4.95	mg/kg	10.24.19 22.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 20.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 20.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 20.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 20.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 20.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 20.04	
o-Terphenyl	84-15-1	104	%	70-135	10.24.19 20.04	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-017	Date Collected:	10.22.19 12.45	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.27.19 20.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 20.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 20.23	
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.27.19 20.23	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-018	Date Collected:	10.22.19 12.50	Sample Depth:	1 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1030**	4.95	mg/kg	10.24.19 22.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 20.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 20.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 20.25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 20.25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 20.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.24.19 20.25	
o-Terphenyl	84-15-1	104	%	70-135	10.24.19 20.25	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-018	Date Collected:	10.22.19 12.50	Sample Depth:	1 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.19 20.43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.27.19 20.43	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.27.19 20.43	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-019	Date Collected:	10.22.19 12.55	Sample Depth:	1 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4430**	25.2	mg/kg	10.24.19 22.41		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 20.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.24.19 20.46	
o-Terphenyl	84-15-1	105	%	70-135	10.24.19 20.46	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-019	Date Collected:	10.22.19 12.55	Sample Depth:	1 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.27.19 21.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.19 21.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.27.19 21.03	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 21.03	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-020	Date Collected:	10.22.19 13.00	Sample Depth:	1 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**633**	4.99	mg/kg	10.24.19 22.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105463			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	10.24.19 21.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.24.19 21.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 21.07	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.24.19 21.07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.24.19 21.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.24.19 21.07	
o-Terphenyl	84-15-1	102	%	70-135	10.24.19 21.07	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-020	Date Collected:	10.22.19 13.00	Sample Depth:	1 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 10.30	Basis:	Wet Weight
Seq Number:	3105530			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.27.19 21.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.27.19 21.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.27.19 21.23	
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.27.19 21.23	

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LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-021	Date Collected:	10.22.19 13.05	Sample Depth:	1 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 14.30	Basis:	Wet Weight
Seq Number:	3105377			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**572**	4.98	mg/kg	10.24.19 22.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105466			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	10.24.19 20.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.24.19 20.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.24.19 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	10.24.19 20.46	
o-Terphenyl	84-15-1	82	%	70-135	10.24.19 20.46	

Certificate of Analytical Results 640781

LT Environmental, Inc., Arvada, CO

PLU Big Sinks 25 Federal Battery

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	10.23.19 09.12
Lab Sample Id:	640781-021	Date Collected:	10.22.19 13.05	Sample Depth:	1 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.27.19 11.00	Basis:	Wet Weight
Seq Number:	3105532			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.28.19 00.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.28.19 00.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.28.19 00.41	
4-Bromofluorobenzene	460-00-4	102	%	70-130	10.28.19 00.41	

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 640781

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105376 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688862-1-BLK — LCS Sample Id: 7688862-1-BKS — LCSD Sample Id: 7688862-1-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	258	103	90-110	2	20	mg/kg	10.24.19 18:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105377 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688863-1-BLK — LCS Sample Id: 7688863-1-BKS — LCSD Sample Id: 7688863-1-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	265	106	264	106	90-110	0	20	mg/kg	10.24.19 21:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105376 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640895-022 — MS Sample Id: 640895-022 S — MSD Sample Id: 640895-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	32.6	249	299	107	296	106	90-110	1	20	mg/kg	10.24.19 18:37	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105376 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640896-004 — MS Sample Id: 640896-004 S — MSD Sample Id: 640896-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	253	303	109	290	104	90-110	4	20	mg/kg	10.24.19 19:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105377 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640781-009 — MS Sample Id: 640781-009 S — MSD Sample Id: 640781-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.4	250	303	112	305	113	90-110	1	20	mg/kg	10.24.19 21:21	X

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 640781

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105377 Matrix: Soil Date Prep: 10.24.19
Parent Sample Id: 640781-020 MS Sample Id: 640781-020 S MSD Sample Id: 640781-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	633	250	922	116	930	119	90-110	1	20	mg/kg	10.24.19 22:31	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105463 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688840-1-BLK LCS Sample Id: 7688840-1-BKS LCSD Sample Id: 7688840-1-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	1140	114	1140	114	70-135	0	20	mg/kg	10.24.19 12:32	
Diesel Range Organics (DRO)	<15.0	1000	1110	111	1120	112	70-135	1	20	mg/kg	10.24.19 12:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		116		117		70-135	%	10.24.19 12:32
o-Terphenyl	103		117		117		70-135	%	10.24.19 12:32

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105466 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688841-1-BLK LCS Sample Id: 7688841-1-BKS LCSD Sample Id: 7688841-1-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	983	98	981	98	70-135	0	20	mg/kg	10.24.19 12:32	
Diesel Range Organics (DRO)	<50.0	1000	927	93	1040	104	70-135	11	20	mg/kg	10.24.19 12:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		101		102		70-135	%	10.24.19 12:32
o-Terphenyl	99		101		100		70-135	%	10.24.19 12:32

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105463 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688840-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.24.19 12:11	

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 640781

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105466 | Matrix: Solid | Date Prep: 10.24.19
MB Sample Id: 7688841-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.24.19 12:11	

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105463 | Matrix: Soil | Date Prep: 10.24.19
Parent Sample Id: 640781-001 | MS Sample Id: 640781-001 S | MSD Sample Id: 640781-001 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	1100	110	1150	115	70-135	4	20	mg/kg	10.24.19 13:34	
Diesel Range Organics (DRO)	<15.0	999	1120	112	1170	117	70-135	4	20	mg/kg	10.24.19 13:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		109		70-135	%	10.24.19 13:34
o-Terphenyl	102		105		70-135	%	10.24.19 13:34

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105466 | Matrix: Soil | Date Prep: 10.24.19
Parent Sample Id: 640827-001 | MS Sample Id: 640827-001 S | MSD Sample Id: 640827-001 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	975	98	965	97	70-135	1	20	mg/kg	10.24.19 13:34	
Diesel Range Organics (DRO)	22.3	997	924	90	899	88	70-135	3	20	mg/kg	10.24.19 13:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		89		70-135	%	10.24.19 13:34
o-Terphenyl	86		84		70-135	%	10.24.19 13:34

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

QC Summary 640781

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105530 — Matrix: Solid — Date Prep: 10.27.19
MB Sample Id: 7688948-1-BLK — LCS Sample Id: 7688948-1-BKS — LCSD Sample Id: 7688948-1-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	0.112	112	0.120	120	70-130	7	35	mg/kg	10.27.19 12:03	
Toluene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35	mg/kg	10.27.19 12:03	
Ethylbenzene	<0.00200	0.100	0.115	115	0.112	112	70-130	3	35	mg/kg	10.27.19 12:03	
m,p-Xylenes	<0.00400	0.200	0.234	117	0.226	113	70-130	3	35	mg/kg	10.27.19 12:03	
o-Xylene	<0.00200	0.100	0.114	114	0.111	111	70-130	3	35	mg/kg	10.27.19 12:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		99		70-130	%	10.27.19 12:03
4-Bromofluorobenzene	99		109		98		70-130	%	10.27.19 12:03

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105532 — Matrix: Solid — Date Prep: 10.27.19
MB Sample Id: 7688950-1-BLK — LCS Sample Id: 7688950-1-BKS — LCSD Sample Id: 7688950-1-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	0.108	108	70-130	0	35	mg/kg	10.27.19 22:41	
Toluene	<0.00200	0.100	0.102	102	0.100	100	70-130	2	35	mg/kg	10.27.19 22:41	
Ethylbenzene	<0.00200	0.100	0.103	103	0.0998	100	70-130	3	35	mg/kg	10.27.19 22:41	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.200	100	70-130	3	35	mg/kg	10.27.19 22:41	
o-Xylene	<0.00200	0.100	0.103	103	0.100	100	70-130	3	35	mg/kg	10.27.19 22:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		97		98		70-130	%	10.27.19 22:41
4-Bromofluorobenzene	95		104		98		70-130	%	10.27.19 22:41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105530 — Matrix: Soil — Date Prep: 10.27.19
Parent Sample Id: 640781-001 — MS Sample Id: 640781-001 S — MSD Sample Id: 640781-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.108	107	0.124	124	70-130	14	35	mg/kg	10.27.19 12:43	
Toluene	<0.00201	0.101	0.0996	99	0.113	113	70-130	13	35	mg/kg	10.27.19 12:43	
Ethylbenzene	<0.00201	0.101	0.0994	98	0.112	112	70-130	12	35	mg/kg	10.27.19 12:43	
m,p-Xylenes	<0.00402	0.201	0.201	100	0.226	113	70-130	12	35	mg/kg	10.27.19 12:43	
o-Xylene	<0.00201	0.101	0.0994	98	0.111	111	70-130	11	35	mg/kg	10.27.19 12:43	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	10.27.19 12:43
4-Bromofluorobenzene	101		107		70-130	%	10.27.19 12:43

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 640781

LT Environmental, Inc.

PLU Big Sinks 25 Federal Battery

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

Seq Number: 3105532 Matrix: Soil Date Prep: 10.27.19

Parent Sample Id: 640781-021 MS Sample Id: 640781-021 S MSD Sample Id: 640781-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0940	94	0.0880	87	70-130	7	35	mg/kg	10.27.19 23:22	
Toluene	<0.00200	0.100	0.0852	85	0.0782	77	70-130	9	35	mg/kg	10.27.19 23:22	
Ethylbenzene	<0.00200	0.100	0.0871	87	0.0778	77	70-130	11	35	mg/kg	10.27.19 23:22	
m,p-Xylenes	<0.00401	0.200	0.174	87	0.154	76	70-130	12	35	mg/kg	10.27.19 23:22	
o-Xylene	<0.00200	0.100	0.0910	91	0.0804	80	70-130	12	35	mg/kg	10.27.19 23:22	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	10.27.19 23:22
4-Bromofluorobenzene	110		98		70-130	%	10.27.19 23:22

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

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 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: 640781

Page 1 of 3

Project Manager:	Dan Moir	Bill to: (if different)	~~Jo~~ Kyle Littrell
Company Name:	LTE Environmental	Company Name:	XTO
Address:	3300 North A Stnet	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas, 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	432.236.3849	Email:	slo@lteny.com dmoir@lteny.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:	PLU Big Sinks 25 Federal Battery	Turn Around	
Project Number:	2RP-4398	Routine ☑	
Project Location		Rush:	
Sampler's Name:		Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes / No	Wet Ice:	Yes / No
Temperature (°C):	4.0	Thermometer ID	TNM007
Received Intact:	Yes / No		
Cooler Custody Seals:	Yes / No / N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes / No / N/A	Total Containers:	21

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)	Chlorides (EM 300)	BTEX (EPA 8021)	Sample Comments
	PH01	S	10.22.19	1335	1'	1	X	X	X	
	PH01A			1340	2'	1				
	PH01B			1345	3'					
	PH01C			1350	4'					
	PH01D			1355	5'					
	PH02			1410	1'					
	PH02A			1415	2'					
	PH02B			1420	3'					
	PH02C			1425	4'					
	PH02D	↓	↓	1430	5'	↓	↓	↓	↓	

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
	Cassie	10/23/19 09:12	2		
			4		
			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 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
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Work Order No: 640781

Page 2 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	sla@ltenv.com, dmoir@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:	PLU Big Sinks 25 Federal Battery	Turn Around	
Project Number:	2RP-4396	Routine ☑	
Project Location		Rush:	
Sampler's Name:		Due Date:	
PO #:		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:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Pres. Code	Number of Containers	TPH (EPA 8015)	Chlorides (EPA 300)	BTEX (EPA 8021)
	BH01	S	10.22.19	1620	1'		X	X	X	X
	BH01A			1625	2'					
	BH01B			1630	3'					
	BH01C			1635	4'					
	BH01D			1640	5'					
	FS01			1240	5'					
	FS02			1245	5'					
	SW03			1250	1-5'					
	SW01			1255	1-5'					
	SW02			1300	1-5'					

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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
	Cortez	10/23/19 0912	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

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: 640781

www.xenco.com Page 3 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental	Company Name:	XTO
Address:	3300 North A Street	Address:	3104 E 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

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:	PLU Big Sinks 25 Federal Battery	Turn Around	
Project Number:	2RP-4398	Routine	☒
Project Location		Rush:	
Sampler's Name:		Due Date:	
PO #:		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

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 (SW846 8015)	Chlorides (SW846 300)	BTEX (SW846 8021)	Sample Comments
	SW04	S	10.21.19	1305	1-5'	x		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
1			10/23/19 09:12	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

Inter-Office Shipment

IOS Number **50698**

Date/Time: 10/23/19 14:02
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776797683616

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
640781-001	S	PH01	10/22/19 13:35	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-001	S	PH01	10/22/19 13:35	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-001	S	PH01	10/22/19 13:35	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-002	S	PH01A	10/22/19 13:40	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-002	S	PH01A	10/22/19 13:40	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-002	S	PH01A	10/22/19 13:40	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-003	S	PH01B	10/22/19 13:45	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-003	S	PH01B	10/22/19 13:45	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-003	S	PH01B	10/22/19 13:45	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-004	S	PH01C	10/22/19 13:50	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-004	S	PH01C	10/22/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-004	S	PH01C	10/22/19 13:50	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-005	S	PH01D	10/22/19 13:55	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-005	S	PH01D	10/22/19 13:55	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-005	S	PH01D	10/22/19 13:55	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-006	S	PH02	10/22/19 14:10	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-006	S	PH02	10/22/19 14:10	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-006	S	PH02	10/22/19 14:10	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-007	S	PH02A	10/22/19 14:15	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-007	S	PH02A	10/22/19 14:15	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-007	S	PH02A	10/22/19 14:15	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-008	S	PH02B	10/22/19 14:20	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-008	S	PH02B	10/22/19 14:20	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-008	S	PH02B	10/22/19 14:20	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-009	S	PH02C	10/22/19 14:25	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

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Air Bill No.: 776797683616

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
640781-009	S	PH02C	10/22/19 14:25	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-009	S	PH02C	10/22/19 14:25	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-010	S	PH02D	10/22/19 14:30	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-010	S	PH02D	10/22/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-010	S	PH02D	10/22/19 14:30	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-011	S	BH01	10/22/19 16:20	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-011	S	BH01	10/22/19 16:20	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-011	S	BH01	10/22/19 16:20	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-012	S	BH01A	10/22/19 16:25	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-012	S	BH01A	10/22/19 16:25	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-012	S	BH01A	10/22/19 16:25	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-013	S	BH01B	10/22/19 16:30	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-013	S	BH01B	10/22/19 16:30	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-013	S	BH01B	10/22/19 16:30	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-014	S	BH01C	10/22/19 16:35	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-014	S	BH01C	10/22/19 16:35	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-014	S	BH01C	10/22/19 16:35	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-015	S	BH01D	10/22/19 16:40	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-015	S	BH01D	10/22/19 16:40	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-015	S	BH01D	10/22/19 16:40	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-016	S	FS01	10/22/19 12:40	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-016	S	FS01	10/22/19 12:40	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-016	S	FS01	10/22/19 12:40	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-017	S	FS02	10/22/19 12:45	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-017	S	FS02	10/22/19 12:45	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number **50698**

Date/Time: 10/23/19 14:02
Lab# From: **Carlsbad**
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Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 776797683616

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
640781-017	S	FS02	10/22/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-018	S	SW03	10/22/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-018	S	SW03	10/22/19 12:50	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-018	S	SW03	10/22/19 12:50	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-019	S	SW01	10/22/19 12:55	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-019	S	SW01	10/22/19 12:55	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-019	S	SW01	10/22/19 12:55	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-020	S	SW02	10/22/19 13:00	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	
640781-020	S	SW02	10/22/19 13:00	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-020	S	SW02	10/22/19 13:00	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-021	S	SW04	10/22/19 13:05	SW8021B	BTEX by EPA 8021B	10/29/19	11/05/19	JKR	BR4FBZ BZ BZME EBZ X	
640781-021	S	SW04	10/22/19 13:05	SW8015MOD_NM	TPH by SW8015 Mod	10/29/19	11/05/19	JKR	GRO-DRO PHCC10C28 PI	
640781-021	S	SW04	10/22/19 13:05	E300_CL	Chloride by EPA 300	10/29/19	04/19/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 10/23/2019

Received By: 
Brianna Teel

Date Received: 10/24/2019 11:18

Cooler Temperature: 0.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50698

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 10/23/2019 02:02 PM

Received By: Brianna Teel **Date Received:** 10/24/2019 11:18 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#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: 10/24/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/23/2019 09:12:00 AM

Work Order #: 640781

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)?	4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**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: 10/23/2019

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 4932
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Will need detailed/extensive soil assessment at closure to at least 5 foot depth, and may need another DTW evaluation.	9/15/2021