LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
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: Remediation Work Plan and Sampling Variance Request
James Ranch Unit Drilling Island-1
Remediation Permit Numbers: 2RP-2334, 2RP-2267, 2RP-2440, 2RP-2782, 2RP-3046, 2RP-3143, 2RP-3524, 2RP-3362, 2RP-3864, 2RP-4528, 2RP-4625, and 2RP-4756
Incident Numbers: NRM1935433078 and NRM2002747253
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Remediation Work Plan (Work Plan) and Sampling Variance Request to the New Mexico Oil Conservation Division (NMOCD) detailing site assessment, soil sampling, and proposed remedial actions to address releases at the James Ranch Unit Drilling Island-1 (JRU DI-1) (Site) in Units B, C, F, G and H, Section 21, Township 22 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to address impacts to soil following 14 separate events that caused the release of produced water and/or crude oil at the Site. Results of the site assessment and soil sampling activities were utilized in developing this Work Plan.

Remediation Permit (RP) numbers 2RP-2334, 2RP-2267, 2RP-2440, 2RP-2782, 2RP-3046, 2RP-3143, 2RP-3524, 2RP-3662, 2RP-3864, 2RP-4528, 2RP-4625, and 2RP-4756 are included in the *Compliance Agreement for Remediation for Historical Releases* (Compliance Agreement) between XTO and 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 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, site investigations or remediation were ongoing. Incident Numbers NRM1935433078 and NRM2002747253 occurred after August 14, 2018, but the associated release extents overlap the historical releases and are included in this Work Plan to be addressed simultaneously.

This Work Plan summarizes assessment activities conducted to date and is designed to address remaining impacts to soil by installing a 20-millimeter (20-mil) impermeable liner in the subsurface, after excavating the upper four feet of soil where chloride is the only contaminant of

concern. All other contaminants of concern, specifically benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH), or areas not requiring excavation to four feet below ground surface (bgs), will be excavated to below the Site's established Closure Criteria as discussed below.

RELEASE BACKGROUND

Figure 2 depicts the approximate point of release and associated extent the for the 12 RP Numbers and two Incidents. Below is a summary of each release at the Site.

2RP-2267 – JRU 21 SWD-1

On April 14, 2014, during a Saltwater Disposal (SWD) well acid-frac, misaligned valves for the water pumps caused on-site frac tanks to overflow into a plastic lined containment. The liner breached and produced water overflowed into a secondary earthen containment, which eventually overflowed to the well pad and the pasture to the north. The release consisted of approximately 1,200 barrels (bbls) of produced water, of which approximately 1,000 bbls were recovered. The release impacted approximately 700 square feet of well pad and approximately 6,400 square feet of pasture. The former operator reported the release to NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on April 24, 2014 and was assigned RP Number 2RP-2267.

2RP-2334 – DI-1-JRU-135H

On June 4, 2014, a vacuum truck hose discharged produced water to the well pad during drilling operations. Free liquids were recovered using a vacuum truck and saturated soil were scraped and stockpiled on the well pad. The release consisted of approximately 15 bbls of produced water, of which approximately 10 bbls were recovered. The release impacted approximately 200 square feet of well pad. The former operator reported the release to NMOCD on a Form C-141 on June 9, 2014 and was assigned RP Number 2334.

RP-2440 – JRU-DI-1 JRU-21 SWD Pumps

On August 8, 2014, an 8-inch by 6-inch reducer failed on the suction side of the SWD horizontal pumps, causing a lined containment to overflow to the well pad and adjacent pasture. The pumps were shut down and the fittings were replaced. The release consisted of approximately 600 bbls of produced water, of which approximately 50 bbls were recovered. The release impacted approximately 900 square feet of well pad and approximately 6,400 square feet of pasture. The former operator reported the release to NMOCD on a Form C-141 on August 13, 2014 and was assigned RP Number 2440.

2RP-2782 – JRU-DI-1 JRU-21 SWD Pumps

On January 31, 2015, a fiberglass connection failed on the suction line to the SWD H-pumps, releasing produced water to the lined containment (110 bbls) and the well pad (10 bbls). The pumps were shut down to isolate the damaged area and repairs were made. The release consisted of approximately 120 bbls of produced water, of which approximately 112 bbls were recovered. The impacted area on the well pad overlapped the area reported in previous RP Number 2RP-2440. The former operator reported the release to NMOCD on a Form C-141 on February 2, 2015 and was assigned RP Number 2782.

2RP-3046 – JRU-12H Jet Pump

On June 8, 2015, vibration caused a bolt to shear off the filter pot lid on the jet pump releasing produced water to the well pad. The unit was locked-out and tagged-out until repairs could be completed. The release consisted of approximately 818 bbls of produced water, of which approximately 740 bbls were recovered using vacuum trucks. Approximately 43,350 square feet of well pad and 880 square feet of northern pasture were impacted. The release extent followed a similar flow pathway as was reported for 2RP-2440. The former operator reported the release to NMOCD on a Form C-141 on June 10, 2015 and was assigned RP Number 2RP-3046.

2RP-3143 – JRU-12H Jet Pump

On July 19, 2015, a bolt on the jet pump suction strainer sheared off, releasing produced water on the well pad and within the containment area. The transfer pump to the jet pump shut down on low discharge, automatically shutting down the jet pump. The release consisted of approximately 71 bbls of produced water, of which approximately 50 bbls were recovered. The release impacted approximately 1,500 square feet of well pad. The former operator reported the release to NMOCD on a Form C-141 on July 21, 2015 and was assigned RP Number 2RP-3143.

2RP-3524 – JRU-12H

On January 18, 2016, the discharge line from the triplex pump to the well developed a leak below the ground surface, resulting in a produced water release to the well pad. The line was isolated, soil excavated, and the line was repaired. The release consisted of approximately 22 bbls of produced water, of which approximately five bbls were recovered. Approximately 7,135 square feet of well pad was impacted. The former operator reported the release to NMOCD on a Form C-141 on January 27, 2016 and was assigned RP Number 2RP-3524.

2RP-3662 – JRU-12H

On April 21, 2016, corrosion of a pressurized steel line resulted in a produced water release. The line was isolated, exposed and repaired. The release consisted of approximately 24 bbls of

produced water, of which approximately 10 bbls were recovered. Approximately 900 square feet of well pad was impacted. The former operator reported the release to NMOCD on a Form C-141 on April 27, 2016 and was assigned RP Number 2RP-3662.

2RP-3864 – JRU-12H

On August 26, 2016, a 4-inch suction line for the jet pump ruptured and released produced water to the caliche pad. The lease operator shut down the charge pump, isolated the valve, and the line was repaired. The release consisted of approximately 65 bbls of produced water, of which approximately 50 bbls were recovered using vacuum trucks. Approximately 7,000 square feet of well pad was impacted. The former operator reported the release to NMOCD on a Form C-141 on September 6, 2016 and was assigned RP Number 2RP-3864.

2RP-4528 – JRU DI-1 (JRU-12H)

On December 6, 2017, a 2-inch by 3-inch switch on the triplex jet pump failed. The well was shut-in until repairs could be made. The release consisted of approximately 18 bbls of produced water, of which approximately 17 bbls of produced water were recovered. The release was reported to NMOCD on a Form C-141 on December 15, 2017 and was assigned RP Number 2RP-4528.

2RP-4625 – JRU DI 1A #127/Well #127

On February 3, 2018, a 10-inch Victaulic clamp disconnected from a contractor trailer releasing produced water to the well pad and north/northeast pasture. The release consisted of approximately 115 bbls of produced water onto the well pad and pasture north of the well pad, of which approximately 25 bbls of produced water were recovered. The release was reported to NMOCD on a Form C-141 on February 15, 2018 and was assigned RP Number 2RP-4625.

2RP-4756 – JRU DI #157

On May 4, 2018, a faulty head switch caused a temporary flowback tank to overflow at the southwestern portion of the well pad. The head switch was repaired and returned to operation. The release consisted of approximately 13 bbls of crude oil, of which approximately 10 bbls were recovered. The release was reported to NMOCD on a Form C-141 on May 17, 2018 and was assigned RP Number 2RP-4756.

NRM1935433078– JRU DI-1 #163

On October 18, 2019, internal corrosion of a buried 3-inch flow line resulted in a crude oil and produced water release on to the well pad. The well was shut-in, repairs were made to the buried line, and the well returned to operations. The release consisted of approximately 0.41 bbls of crude oil and 7.72 bbls of produced water, of which approximately 0.10 bbls of crude oil and 1.9

bbls of produced water were recovered. The release was reported to NMOCD on a Form C-141 on November 1, 2019 and was assigned Incident Number NRM1935433078.

NRM2002747253 – JRU 21 SWD #1

On November 27, 2019, an expansion joint/vibration damper on the suction side of the H-pump ruptured, causing produced water to overflow from the lined containment on to the well pad. The release consisted of approximately 579.92 bbls of produced water, of which approximately 500 bbls were recovered. Approximately 480 bbls of produced water were recovered from within the containment and approximately 20 bbls were recovered from the well pad. The release was reported to NMOCD on a Form C-141 on December 11, 2019 and was assigned Incident Number NRM2002747253.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 NMAC. Depth to groundwater at the Site is estimated to be between 51 feet bgs and 100 feet bgs based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is New Mexico Office of State Engineer (NMOSE) well C-01916, located approximately 4,564 feet southeast of the Site. The groundwater well has a depth to groundwater of 262 feet bgs and a total depth of 1,316 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an intermittent wash located approximately 1,230 feet west 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 within a high-potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

The 14 releases generally affected five areas at the Site and are described as the Northwest Area, Northeast Area, East Area, Southwest Area, and West Area. Figure 2 depicts the five main release areas. Due to duplicative sample nomenclature, applicable RP/Incident Number assessment and sampling results are provided under each area and summarized on Table 1.

Soil samples from initial assessment and delineation activities were 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 potholes and boreholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. Photographic documentation was conducted during the Site visits. Photographic logs are included in Attachment 3.

Preliminary and delineation 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 and/or Carlsbad, New Mexico for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Laboratory analytical reports are included in Attachment 4.

Below is a summary of activities related to each release area and associated RP Number and/or Incident Number.

Northwest Area

2RP-4625

On February 5, 2018, LTE personnel inspected the Site to evaluate the release associated with RP Number 2RP-4625. In general, the release appeared to have pooled on pad and overflowed into the pasture by way of erosional channels from the pad northwards. The majority of the produced water stayed within the ruts to a terminus at approximately 375 feet north. Twelve preliminary soil samples (SS1 through SS12) were collected at a depth of approximately 0.5-feet bgs from each location within and around the release extent (Figure 3). Chloride concentrations exceeding the Closure Criteria were reported in soil collected from samples SS02 and SS12. The remaining 10 locations were below the Closure Criteria for all contaminants of concern. Based on these findings, additional assessment and delineation activities appeared warranted.

On April 6, 2019, LTE conducted additional site assessment activities. Thirteen surface soil samples (SS01 through SS13) were collected at a depth of approximately 0.5-feet bgs from each

location within and around the release extent. Chloride concentrations exceeding the Closure Criteria were reported in 10 of the soil samples collected (SS01, SS03 through SS09, SS11, and SS13). The remaining contaminants of concern were below the Closure Criteria.

On July 15 and July 16, 2019, LTE conducted subsurface delineation activities. A total of 46 soil samples from 20 potholes (PH01 through PH20) were advanced via track hoe within and around the release area to assess the lateral and vertical extents of soil impacts associated with the historical release (Figure 3). Two to five soil samples were collected from each pothole, with depths ranging from approximately one foot bgs to five feet bgs. Chloride concentrations exceeding the Closure Criteria were reported in three of the 44 subsurface soil samples, with the highest concentrations detected immediately to the north of the point of release in pothole samples PH09, PH11, and PH16. Deeper samples from each of these exceedances were below the Closure Criteria.

Laboratory analytical results for the preliminary and delineation soil samples indicated benzene, BTEX, and TPH concentrations were compliant with applicable Closure Criteria in all initial assessment and delineation soil samples. Chloride exceeds Closure Criteria in the areas described above. In general, the northwest pasture consists of sandy soil at the ground surface that is underlain by sandy clay, which limits the vertical migration of impacts due to the low effective porosity and its negatively-charged nature, attracting chloride and minimizing leaching. Based on the initial and delineation soil sampling activities, the lateral and vertical extents of the chloride impact to soil have been defined to depths ranging from four to five feet bgs. The vertical extent is five feet bgs near PH09.

Northeast Area

2RP-2267

On December 20, 2017, LTE personnel inspected the Site to evaluate the release area associated with RP Number 2RP-2267. In general, the release appeared to have pooled on pad and overflowed into the northern pasture by way of one main erosional channel from the pad. The majority of the produced water stayed within the channel and pooled at the terminus located approximately 775 feet to the north. Six preliminary soil samples (SS01 through SS06) were collected within and around the release area to assess the lateral extent of potentially impacted soil. A soil sample from each location was collected at a depth of approximately 0.5 feet bgs. The soil sample locations, depicted on Figure 4, were selected based on information provided on the initial Form C-141 and field observations. Soil sample SS04 reported a chloride concentration exceeding the Closure Criteria. The remaining five locations were below the Closure Criteria for all contaminants of concern. Based on these findings, additional delineation of the release extent appeared warranted.

From February 26 through February 28, 2019, LTE conducted subsurface delineation activities. A total of 38 soil samples from 19 potholes (PH01 through PH19) were advanced via track hoe within and around the release area to assess soil impacts associated with the historical release (Figure 4). Two soil samples were collected from each pothole, with depths ranging from approximately four feet bgs to 16 feet bgs. Chloride concentrations exceeding the Closure Criteria were reported in 11 of the 38 soil samples, with the highest concentrations detected immediately to the south and west of the release point in pothole samples PH01, PH04, PH05, PH06, PH08, and PH09. Pothole PH18, located approximately 750 feet north of the Site within the pasture, contained chloride at a concentration exceeding the Closure Criteria.

On December 9, 2019 and January 7, 2020, LTE conducted additional borehole sampling to further delineate the lateral extent of the release. A total of 19 soil samples were collected from 12 boreholes, which were advanced to a depth of approximately four feet bgs utilizing a hand auger. Chloride concentrations exceeding the Closure Criteria were reported in soil from boreholes BH07 and BH09. Borehole BH07 is located in the vicinity of pothole PH05, northwest of the point of release. Borehole BH09 is located approximately 600 feet north of the Site within the pasture.

Chloride exceedances in soil samples from pothole PH09 were reported in the upper sandy soil and decreased once the lithology transitioned to a clayey sand, and field screening results dropped dramatically.

Laboratory analytical results for the preliminary and delineation soil samples indicated benzene, BTEX, and TPH concentrations were compliant with applicable Closure Criteria in all initial assessment and delineation soil samples. The vertical extent of the chloride exceeding the Closure Criteria has not been fully defined, as exhibited in pothole PH01 at approximately 16 feet bgs. Additional lateral delineation is necessary south of the release, where the presence of the pump jack limited soil boring placement. In general, lithology of the Northeast Area is comparable to the Northwest Area, consisting of sandy soil at the ground surface that is underlain by sandy clay, which limits the vertical migration of impacts due to the low effective porosity and its negative-charged nature, attracting chloride and minimizing leaching.

East Area

2RP-2334

On February 19, 2019, LTE conducted site assessment activities. Due to the age of the release, LTE conducted these activities based on a review of the Form C-141. The exact release point was not identified on the Form C-141; therefore, a total of 10 soil samples from five potholes (PH01 through PH05) were advanced via track hoe within and around the presumed release area to assess for potential soil impacts associated with the historical release (Figure 5). Two soil samples were collected from each pothole, with depths ranging from approximately one foot bgs to four

feet bgs. Benzene, BTEX, and TPH concentrations were compliant with applicable Closure Criteria in all soil samples. Chloride concentrations exceeding the Closure Criteria were reported in soil from pothole samples PH02 and PH03. The maximum depth of chloride Closure Criteria exceedances was reported in pothole PH02 at a depth of approximately 4 feet bgs. The well pad is constructed of caliche soil and underlain by sandy clay within the East Area.

West Area

The West Area is comprised of Incident Number NRM2002747253 and RP Number 2RP-2440, whose release point was in the Southwest Area, but the release extended into the West Area (Figure 6).

2RP-2440

From July 17 to July 18, 2019, LTE personnel inspected the Site to evaluate the release extent associated with RP Number 2RP-2440, which resulted from a release at the SWD H-pump. Due to the age of the release, LTE conducted these activities based on a review of the Form C-141. The release appeared to have flowed from the well pad to the pasture, through a corrugated drain underneath the lease road, and continued further north within erosional channels and settled out in low topographic spots. Delineation soil samples were collected within and around the presumed release area on the well pad and into the pasture to assess the vertical and lateral extent of potentially 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.

A total of 28 soil samples were collected from 14 potholes (PH01 through PH14). Chloride concentrations exceeding the Closure Criteria were reported in soil samples from pothole PH09 at a depth of approximately four feet bgs. Laboratory analytical results for the remaining delineation soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria. Pothole PH09 is located approximately 520 feet north of the pad, which based on field observations, is a discontinuous topographic low spot. In general, lithology is consistent with the lithology in other pasture areas, consisting of sandy soil underlain by sandy clay.

NRM2002747253

On December 9, 2019, LTE personnel inspected the Site to evaluate the release extent associated with Incident Number NRM2002747253, which resulted from a failure of the expansion joint/vibration damper on the suction side of the H-pump. The release flowed from the well pad to an erosional channel that connected to a corrugated metal drain located underneath the northern lease road. Fourteen preliminary soil samples (SS01 through SS14) were collected within the release extent at a depth of approximately 0.5 feet bgs. Twelve of the 14 samples collected reported chloride concentrations exceeding the Closure Criteria. Laboratory analytical

results for the remaining soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria.

The release extent from Incident Number NRM2002747253 overlapped other release extents within the West Area and Southwest Area and, as a result, additional delineation activities were not conducted for this Incident Number.

Southwest Area

The Southwest Area consists RP Numbers 2RP-2782, 2RP-3046, 2RP-3143, 2RP-3524, 2RP-3662, 2RP-3864, 2RP-4528, and 2RP-4756, and Incident Number NRM2002747253 (Figure 7). The release point for RP Number 2RP- 2440 was located within the Southwest Area; however, much of the release extended to the adjoining pasture. Therefore, remediation of RP Number 2RP-2440 will be addressed as part of the West Area. Based on the age of RP Number 2RP-2782, the location of the release extent is unknown and presumed to have comingled with the other release extents in this area. As a result, RP Number 2RP-3782 was not assessed separately. A summary of the preliminary and delineation soil sampling from applicable release permits is provided below.

2RP-3524

On December 13, 2017, LTE personnel inspected the Site to evaluate the release extent associated with RP Number 2RP-3524, which resulted from a leak from a belowground line to the caliche pad. The line was excavated for repairs and the release extent was generally limited to the well pad. Five preliminary soil samples (SS-1 through SS-5) were collected within the release extent on the well pad at a depth of 0.5 feet bgs. Four of the five samples collected reported chloride concentrations exceeding the Closure Criteria with the highest concentration at sample location SS-3. In addition, TPH exceeded the Closure Criteria in soil from preliminary soil samples SS-2 and SS-4. Laboratory analytical results for the remaining soil samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria. Based on these findings, delineation sampling appeared warranted.

On February 8, 11, 12, 13, and 15, 2019, LTE collected 50 soil samples from 25 potholes (PH1 through PH22, and PH27 through PH29) to conduct site delineation activities. The soil sample locations, depicted on Figure 7, were selected based on information provided on the initial Form C-141, field observations and preliminary assessment sampling. The potholes were advanced via track hoe within and around the release area to delineate soil impacts associated with the historical release. Fourteen of the soil samples collected reported chloride concentrations exceeding the Closure Criteria. The maximum depth of chloride exceedance was reported in soil from pothole PH5 at a depth of approximately five feet bgs. In general, chloride concentrations decreased with depth. TPH exceeded the Closure Criteria in the soil samples collected from pothole PH1 at a depth of approximately 1-foot bgs. Laboratory analytical results for the

remaining pothole samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria.

2RP-3662

On December 20, 2017, LTE personnel inspected the Site to evaluate the release extent associated with RP Number 2RP-3662, resulting from corrosion of a pressurized steel line. The soil sample locations, depicted on Figure 7, were selected based on information provided on the initial Form C-141 and field observations. Nine preliminary soil samples (SS-1 through SS-9) were collected within the release extent on the well pad at a depth of approximately 0.5 feet bgs. Laboratory analytical results for the nine samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria. The release extent from 2RP-3663 overlapped other release extents within the Southwest Area, as a result, additional delineation activities were not conducted for RP Number 2RP-3662.

2RP-4528

On December 13, 2017, LTE personnel inspected the Site to evaluate the release extent associated with RP Number 2RP-4528, which resulted from a release from the switch on the triplex jet pump. Five preliminary soil samples (SS-1 through SS-5) were collected at a depth of approximately 0.5 feet bgs and within the release extent on the well pad. All five of the samples reported chloride concentrations exceeding the Closure Criteria. Laboratory analytical results for the five soil samples indicated benzene, BTEX, and TPH concentrations were compliant with applicable Closure Criteria.

The location of preliminary soil samples SS-1 through SS-5 were located in close proximity of other delineation soil samples associated with other releases in the southwest area. As a result, no addition vertical or lateral delineation soil samples were collected for RP Number 2RP-4528.

NRM1935433078

On October 23, 2019, LTE personnel inspected the Site to evaluate the release extent associated with Incident Number NRM1935433078, located immediately to the southwest of the well pad. The release resulted from a corrosion leak from a belowground flow line. The flowline was exposed for repairs, which was in the immediate vicinity of several aboveground flowlines on all sides, limiting assessment efforts. A total of nine preliminary soil samples (SS01 through SS09) were collected within and adjacent to the release extent at a depth of approximately 0.5 feet bgs. Five of the samples (SS02 through SS06) reported chloride concentrations exceeding the Closure Criteria. TPH exceeded the Closure Criteria in soil from preliminary samples SS03 through SS06. In addition, total BTEX exceeded the Closure Criteria in samples collected from SS04 and SS06. Laboratory analytical results for the remaining soil samples indicated benzene, BTEX, TPH,

and chloride concentrations were compliant with applicable Closure Criteria. Based on these findings, it was determined that additional assessment and delineation was required.

On January 23 and January 24, 2020, LTE collected 21 soil samples from seven boreholes (BH01 through BH07) to conduct subsurface delineation activities, utilizing a hand auger. The soil sample locations, depicted on Figure 7, were selected based on field screening and observations. Six of the soil samples collected reported chloride concentrations exceeding the Closure Criteria. The maximum depth of chloride exceedance was reported in soil from borehole BH01 at a depth of approximately 7.5 feet bgs. TPH exceeded the Closure Criteria in the soil samples collected from boreholes BH01, BH02, and BH03 at a maximum depth of approximately 7.5 feet bgs. In addition, BTEX exceeded the Closure Criteria in sample collected from BH01 at a depth 0.5 feet bgs. Chloride, total BTEX, and benzene concentrations appear to diminish with depth. Laboratory analytical results for the remaining borehole samples indicated benzene, BTEX, TPH, and chloride concentrations were compliant with applicable Closure Criteria.

Summary

Based on field observations, field screenings, and laboratory analytical results collected during the site assessment and numerous soil sampling events, chloride concentrations exceed Closure Criteria for all releases in the pasture (Northwest Area, Northeast Area, West Area). The chloride impacts in the pasture are delineated in the Northwest Area to approximately four feet to five feet bgs. Elevated chloride concentrations are less than four feet deep in the West Area, and up to 16 feet deep adjacent to the release point in the Northeast Area. The chloride impact appears to be present in the sandy topsoil, with a less porous clay underneath restricting extensive vertical migration except at the release point in the Northeast Area.

Impacts to soil on pad also consist of elevated chloride concentrations with less extensive hydrocarbon impacts. The East Area contains chloride impacts to at least four feet in depth. The Southwest Area contains elevated chloride, TPH, BTEX, and benzene concentrations to at least 7.5 feet bgs. On pad, the lithology is comprised of caliche with the underlying sandy clay observed in the pasture and present at approximately two feet to four feet bgs.

PROPOSED REMEDIATION WORK PLAN

LTE proposes to remediate residual chloride, TPH, BTEX, and benzene impacts in a single effort, combining final delineation, excavation activities, and liner installation. Excavation activities will be completed with a track hoe expect for those areas containing above- or below-ground flowlines, buried utilities lines, pump jacks, and/or processing equipment. A hydro-excavation truck will be deployed to daylight underground flowlines and utilities so that excavations can be safely completed to within two feet of each line. All excavation work will be completed to within two feet of surface flowlines, utilities, pump jacks, and processing equipment.

Due to the depths of chloride impacts in the Northeast and Southwest Areas, the installation of a 20-mil poly liner appears to be a remedial alternative to full excavation that will be equally protective of human health and the environment in excavations where chloride is the only contaminant of concern and impacts exceed four feet bgs. As such, XTO requests to install a 20-mil impermeable liner over the residual impacted soil to mitigate further impacts into the subsurface. The liner will be installed at four feet bgs and backfilled with soil or caliche that contain no waste, depending on the location. Below is a summary table of excavation parameters for each major area. Figure 8 depicts the approximate excavation locations and liners for applicable areas.

SUMMARY OF EXCAVATION PARAMETERS

Parameter	Major Area				
	Northwest	Northeast	East	Southwest	West
Contaminants of Concern	Chloride	Chloride	Chloride	Chloride and TPH	Chloride
Impacted Area (sq. ft)	22,177	34,108	2,425	61,463	32,879
Impacted Volume (cu yds)	3,285	12,632	359	13,307	3,653
Liner Install (Y/N)	No	Yes	No	Yes	No
Estimated Excavation Area for Liner (sq. ft)	NA	17,565	NA	59,885	NA
Estimated Impacted Soil Volume Removed for Liner (cu yds)	NA	2,602	NA	8,872	NA
Estimated Impacted Soil Volume Left In-Place Under Liner (cu yds)	NA	8,457	NA	4,436	NA
Estimated Excavation Area for Non-Liner (sq. ft)	22,177	16,543	2,425	1,578	32,879
Estimated Impacted Soil Volume Removed for Non-Liner (cu yds)	3,285	2,450	359	467	3,653
Lateral Delineation Required (Y/N)	Y	N	N	N	Y
Vertical Delineation Required (Y/N)	Y	N	N	N	Y

Notes:
sq. ft – square feet
cu yds – cubic yards
NA – Not applicable

DELINEATION

While all release areas are generally defined, there are limited portions of the areas that will require additional delineation. Additional delineation will be completed concurrently with excavation activities. Excavations will generally be extended outward to address lateral impacts not fully delineated to-date.

Delineation of areas where the 20-mil poly liner are to be installed and chloride has not been fully delineated will be completed prior to the installation of the liner. Delineation will be completed through the advancement of boreholes using a drill rig or potholes using a track hoe. The proposed vertical delineation sample locations are provided on Figure 8. Samples will be collected for laboratory analysis at the highest field screening reading and at the bottom of the borehole determined by field screening results indicating the soil sample will be compliant with all applicable Closure Criteria.

In areas where above- or below-ground flowlines, buried utilities lines, pump jacks, and/or processing equipment are present on the active well pad, excavations will be completed to within two feet of the impediment. Additional delineation will be conducted in these areas if deferment of any impacted soil near these structures is required.

Soil samples from the delineation activities will be 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 potholes and boreholes will be logged on lithologic/soil sampling logs and photographic documentation will be conducted.

The soil samples will be placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples will be shipped at 4 °C under strict COC procedures to Xenco in Carlsbad, New Mexico, for analysis.

Delineation soil samples for the Southwest Area will be analyzed for BTEX following EPA Method 8021B; TPH-GRO, TPHDRO, and TPH-ORO following EPA Method 8015M/D; and chloride following EPA Method 300.0. Delineation soil samples for the Northwest, Northeast, East, and West Areas will be analyzed for chloride following EPA Method 300.0.

CONFIRMATION SAMPLING VARIANCE REQUEST

XTO is requesting a variance of the 200-square foot confirmation sampling requirement for the areas to be excavated, which would require an estimated 378 floor samples within the estimated excavation extents with no liner. These numbers do not include sidewalls. Due to the aerial extents the affected areas, LTE proposes increasing the confirmation sampling size to a 1,000-square foot area for floor samples and a 500-square foot area for sidewall samples, utilizing a 5-point composite sample to represent each excavation confirmation sample. An estimated 76

samples would be collected from the excavation floor with no liner to address the excavation extents. A minimum of one floor sample and one sidewall sample will be collected from each discrete impacted area within the five general areas. Field screening, sample selection and analytical parameters will be conducted as specified above. Figure 9 illustrated the proposed confirmation sampling grid.

SCHEDULE

Due to ongoing drilling activities at the Site, remediation of impacted soil is limited by XTO safety policies and access during oil and gas drilling and completion operations. XTO will complete excavation and liner installation activities when drilling and completion operations are inactive and/or at the conclusion of all drilling and completion activities, whichever situation is more protective of worker safety. Implementation and completion of this Work Plan will not extend beyond June 1, 2021, unless extenuating circumstances arise and are negotiated with NMOCD.

Updated NMOCD Form C-141 for each is included in Attachment 1 for all remediation permits and Incident Numbers. Photographic logs of the Site are included as Attachment 3.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 946-1093.

Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Mike Bratcher, NMOCD
Bureau of Land Management

Appendices:

Figure 1 Site Location Map
Figure 2 Release Areas
Figure 3 Northwest Soil Sample Locations
Figure 4 Northeast Soil Sample Locations

Figure 5 East Area Soil Sample Locations
Figure 6 West Area Soil Sample Locations
Figure 7 Southwest Area Soil Sample Locations
Figure 8 Proposed Excavation and Liner Extents
Figure 9 Proposed Confirmation Sample Grid
Table 1 Soil Analytical Results
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-2334, 2RP-2267, 2RP-2440, 2RP-2782, 2RP-3046, 2RP-3143, 2RP-3524, 2RP-3662, 2RP-3864, 2RP-4528, 2RP-4625, and 2RP-4756) and Incident Numbers: NRM1935433078 and NRM2002747253
Attachment 2 Lithologic/Soil Sample Logs
Attachment 3 Photographic Logs
Attachment 4 Laboratory Analytical Reports

FIGURES

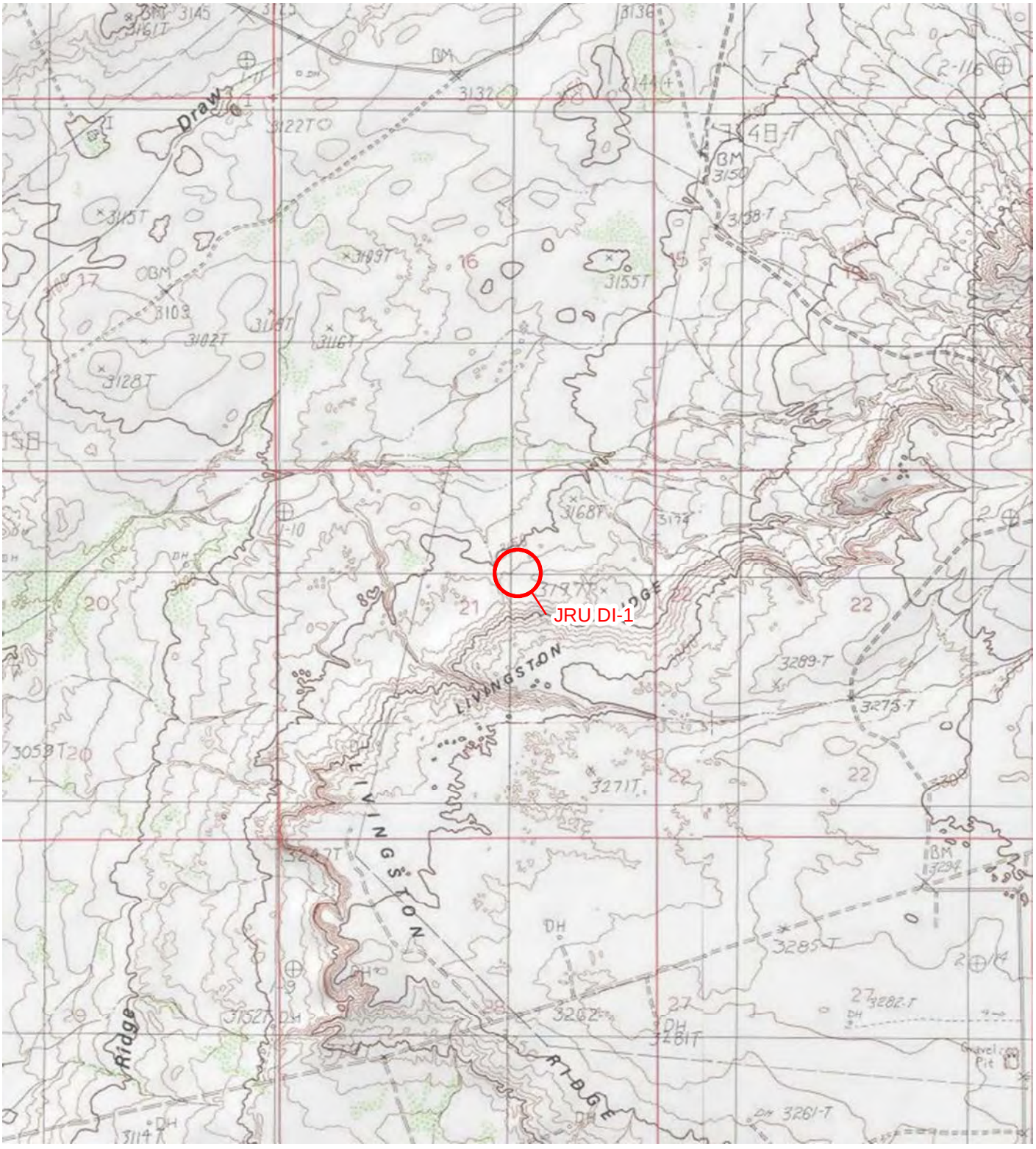


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

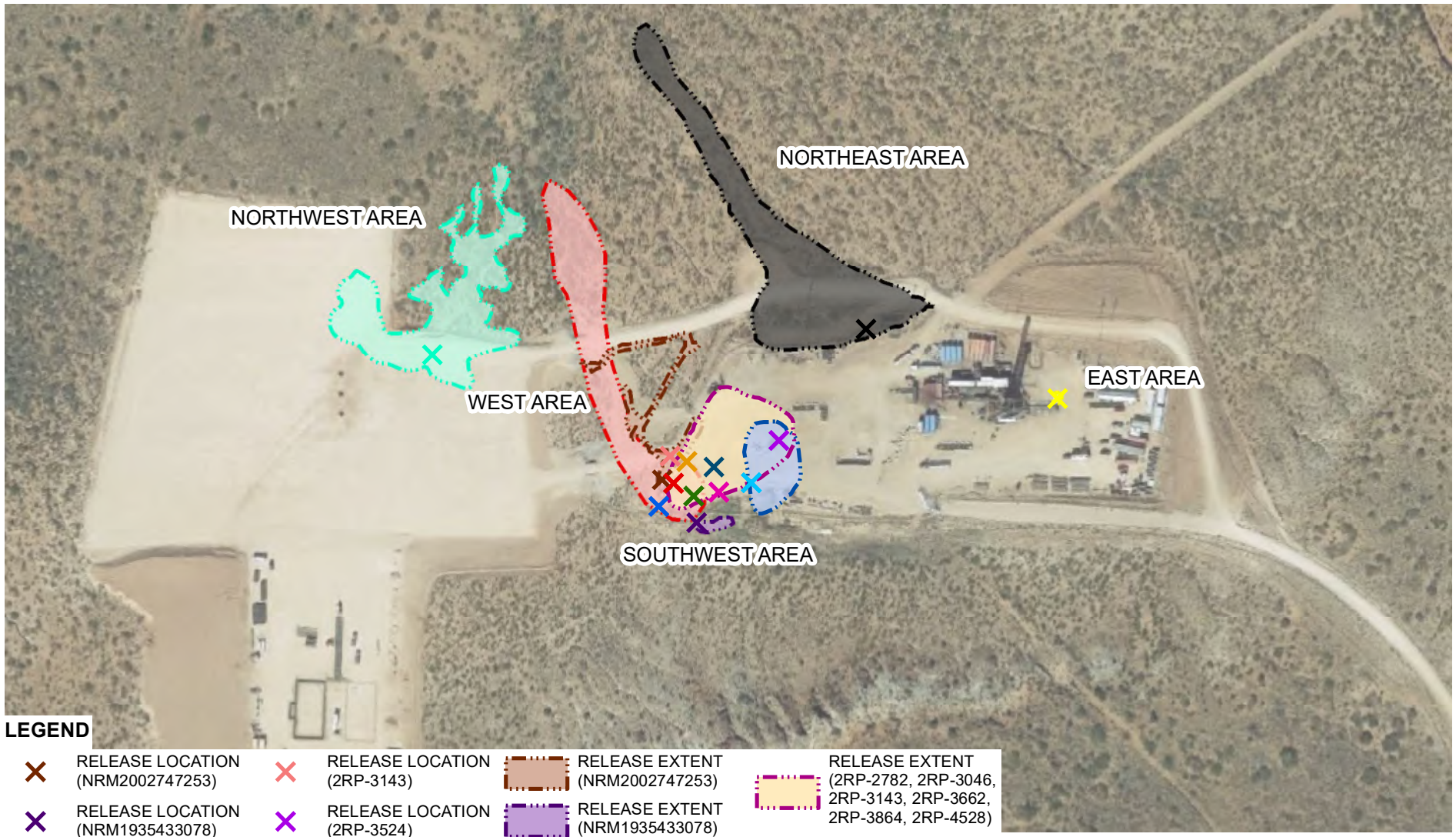
N

NOTE: REMEDIATION PERMIT NUMBERS
2RP-2267, 2RP-2334, 2RP-2440, 2RP-2782,
2RP-3046, 2RP-3143, 2RP-3524, 2RP-3662,
2RP-3864, 2RP-4528, 2RP-4625, & 2RP-4756
INCIDENT NUMBERS NRM2002747253
& NRM1935433078



FIGURE 1
SITE LOCATION MAP
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918007_JRU 12H\012918007_FIG01_SL_2020.mxd



LEGEND

- RELEASE LOCATION (NRM2002747253)
- RELEASE LOCATION (NRM1935433078)
- RELEASE LOCATION (2RP-2267)
- RELEASE LOCATION (2RP-2334)
- RELEASE LOCATION (2RP-2440)
- RELEASE LOCATION (2RP-2782)
- RELEASE LOCATION (2RP-3046)
- RELEASE LOCATION (2RP-3143)
- RELEASE LOCATION (2RP-3524)
- RELEASE EXTENT (2RP-3662)
- RELEASE LOCATION (2RP-3864)
- RELEASE LOCATION (2RP-4528)
- RELEASE LOCATION (2RP-4625)
- RELEASE LOCATION (2RP-4756)
- RELEASE EXTENT (NRM2002747253)
- RELEASE EXTENT (NRM1935433078)
- RELEASE EXTENT (2RP-4625)
- RELEASE EXTENT (2RP-2267)
- RELEASE EXTENT (2RP-2334)
- RELEASE EXTENT (2RP-2440)
- RELEASE EXTENT (2RP-3524, 2RP-4756)
- RELEASE EXTENT (2RP-2782, 2RP-3046, 2RP-3143, 2RP-3662, 2RP-3864, 2RP-4528)

IMAGE COURTESY OF GOOGLE EARTH 2017

0 300 600
Feet

N

FIGURE 2
RELEASE AREAS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG02_RELEASE_2020.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
TPH = 100 mg/kg
Cl = 600 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT

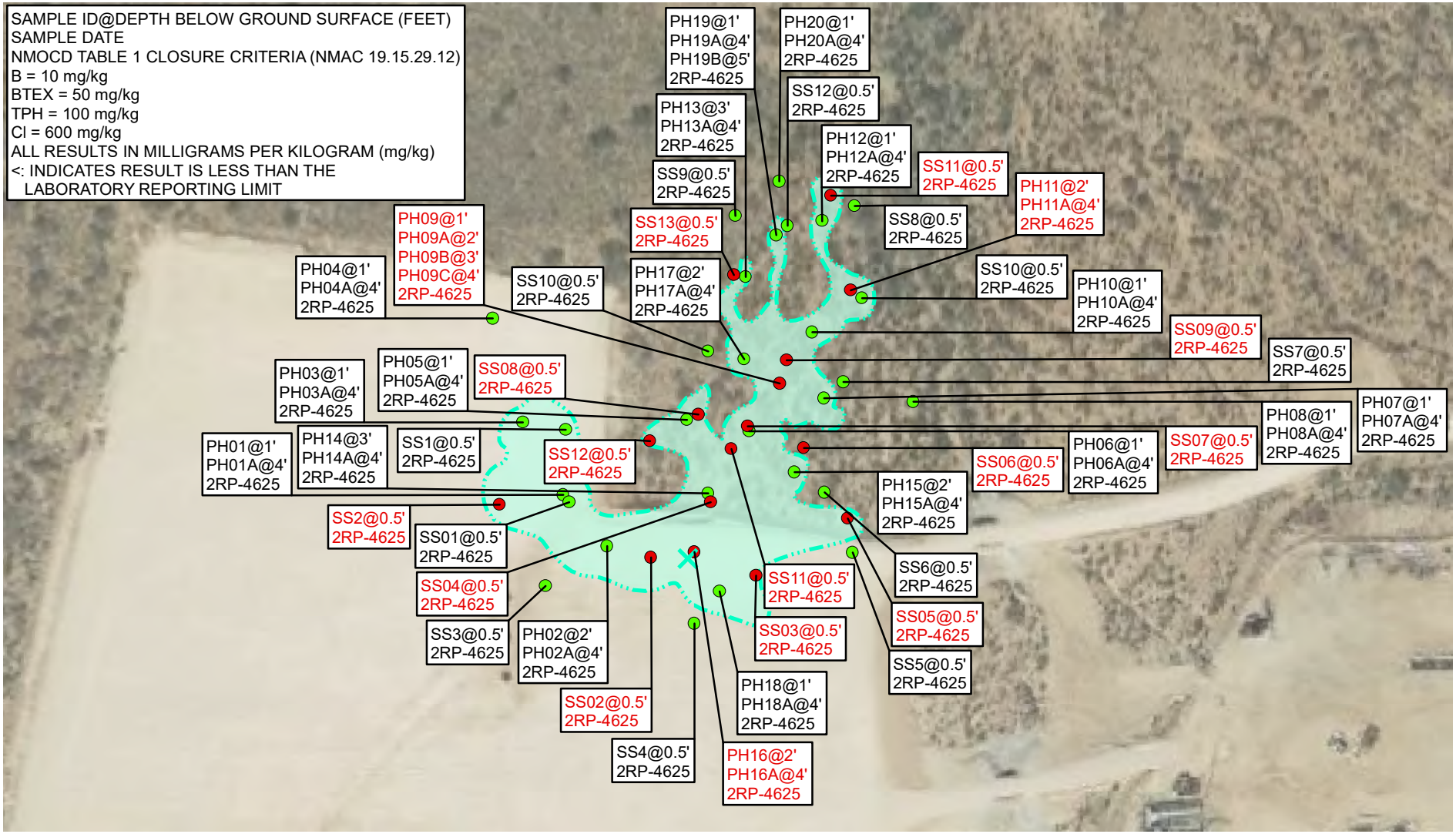


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION (2RP-4625)
- SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT (2RP-4625)

NOTE: REMEDIATION PERMIT NUMBER 2RP-4625

0 150 300
Feet

N

FIGURE 3
NORTHWEST SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG03_NORTHWEST_EXCAVATION_2020_1.mxd

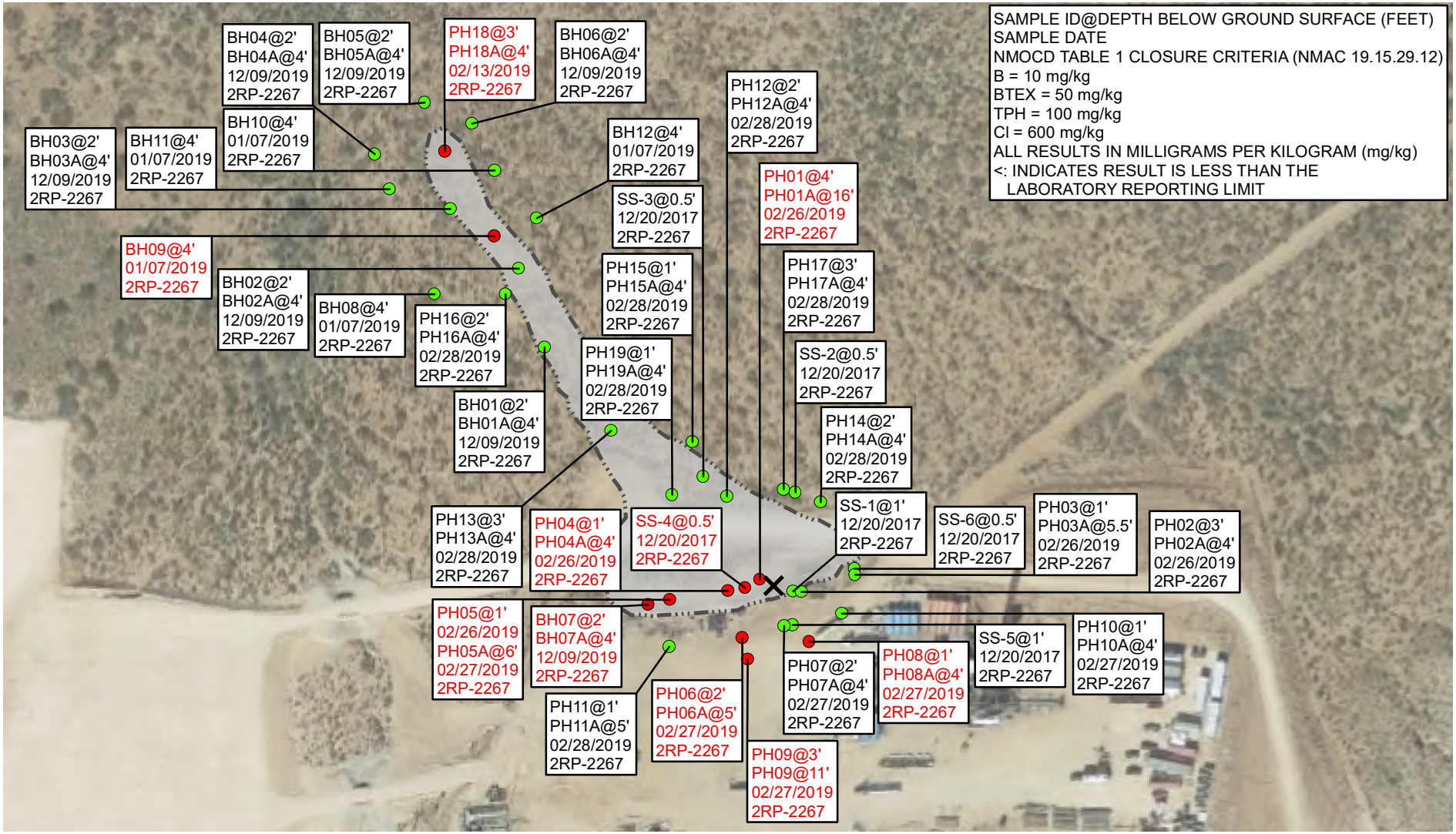


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT (2RP-2267)

NOTE: REMEDIATION PERMIT NUMBER 2RP-2267

0 200 400
Feet

N

FIGURE 4
NORTHEAST SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG04_NORTHEAST_EXCAVATION_2267.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
TPH = 100 mg/kg
Cl = 600 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT



IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- PRESUMED RELEASE LOCATION (2RP-2334) (BASED ON C-141)
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

0 50 100
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-2334

FIGURE 5
EAST SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG05_EAST_EXCAVATION_2020.mxd

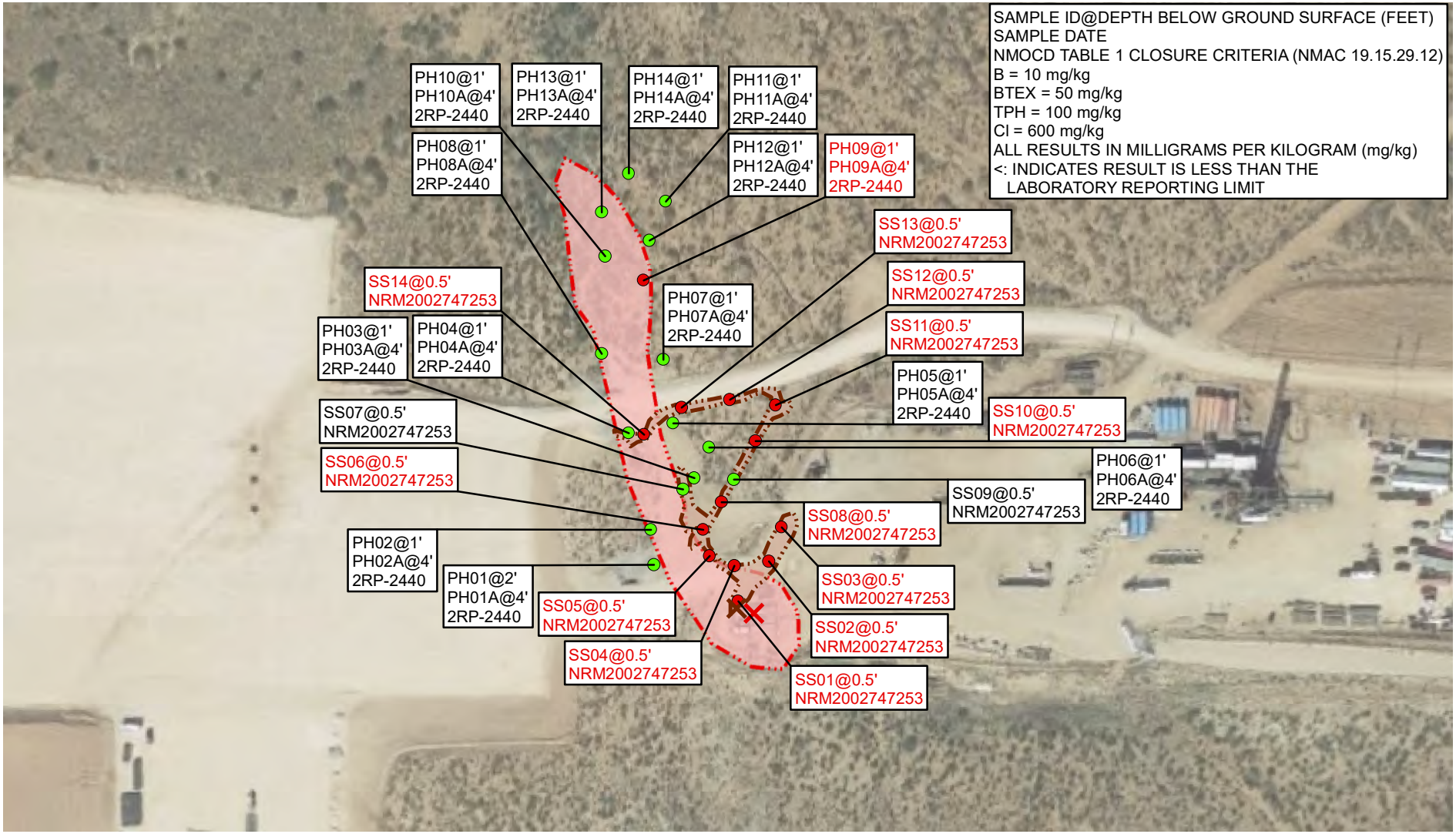


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- RELEASE LOCATION (2RP-2440)
- RELEASE LOCATION (NRM2002747253)
- SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT (NRM2002747253)
- RELEASE EXTENT (2RP-2440)

NOTE: REMEDIATION PERMIT NUMBER 2RP-2440
INCIDENT NUMBER NRM2002747253

0 200 400
Feet

N

FIGURE 6
WEST SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG06_WEST_EXCAVATION_2020_1.mxd

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
SAMPLE DATE
NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
B = 10 mg/kg
BTEX = 50 mg/kg
TPH = 100 mg/kg
Cl = 600 mg/kg
ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
<: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT

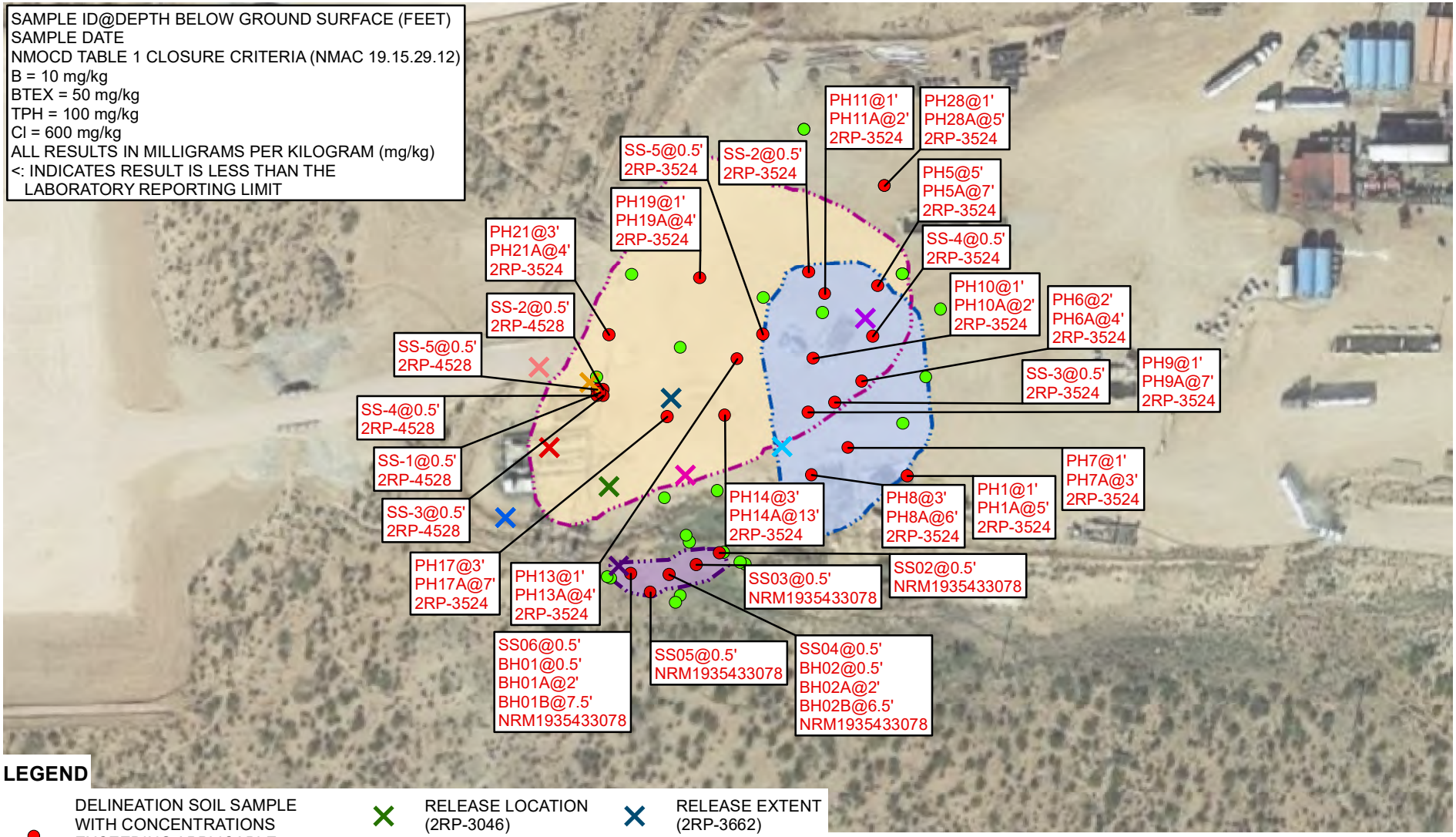


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE LOCATION (NRM1935433078)
- RELEASE LOCATION (2RP-2440)
- RELEASE LOCATION (2RP-2782)
- RELEASE LOCATION (2RP-3046)
- RELEASE LOCATION (2RP-3143)
- RELEASE LOCATION (2RP-3524)
- RELEASE LOCATION (2RP-3864)
- RELEASE LOCATION (2RP-4528)
- RELEASE LOCATION (2RP-4756)
- RELEASE EXTENT (2RP-3662)
- RELEASE EXTENT (NRM1935433078)
- RELEASE EXTENT (2RP-3046, 2RP-3143, 2RP-3864, 2RP-4528)
- RELEASE EXTENT (2RP-3524, 2RP-4756)

0 100 200
Feet

N

FIGURE 7
SOUTHWESTERN SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG07_SOUTHWESTERN_EXCAVATION_2020_1.mxd

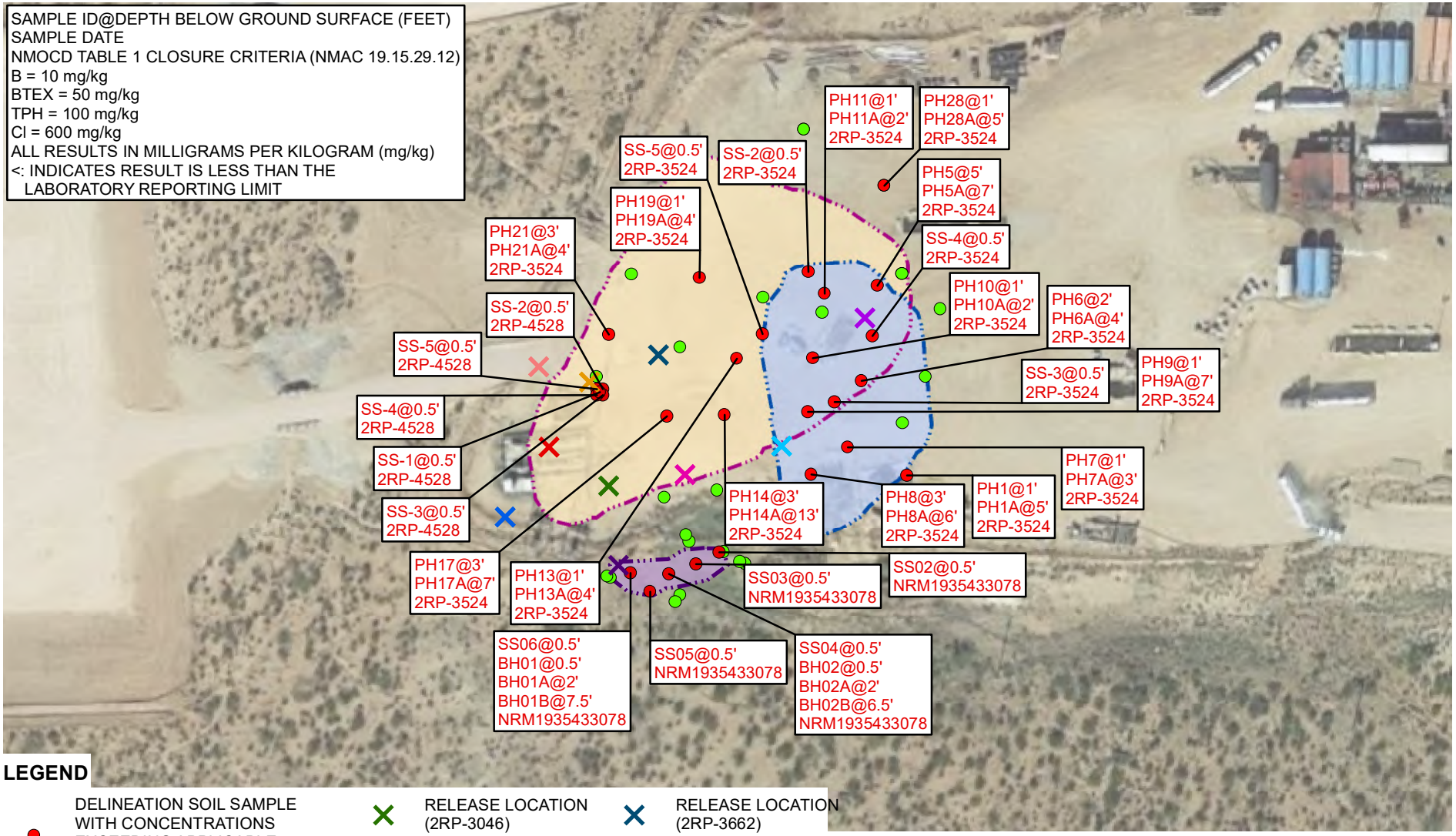
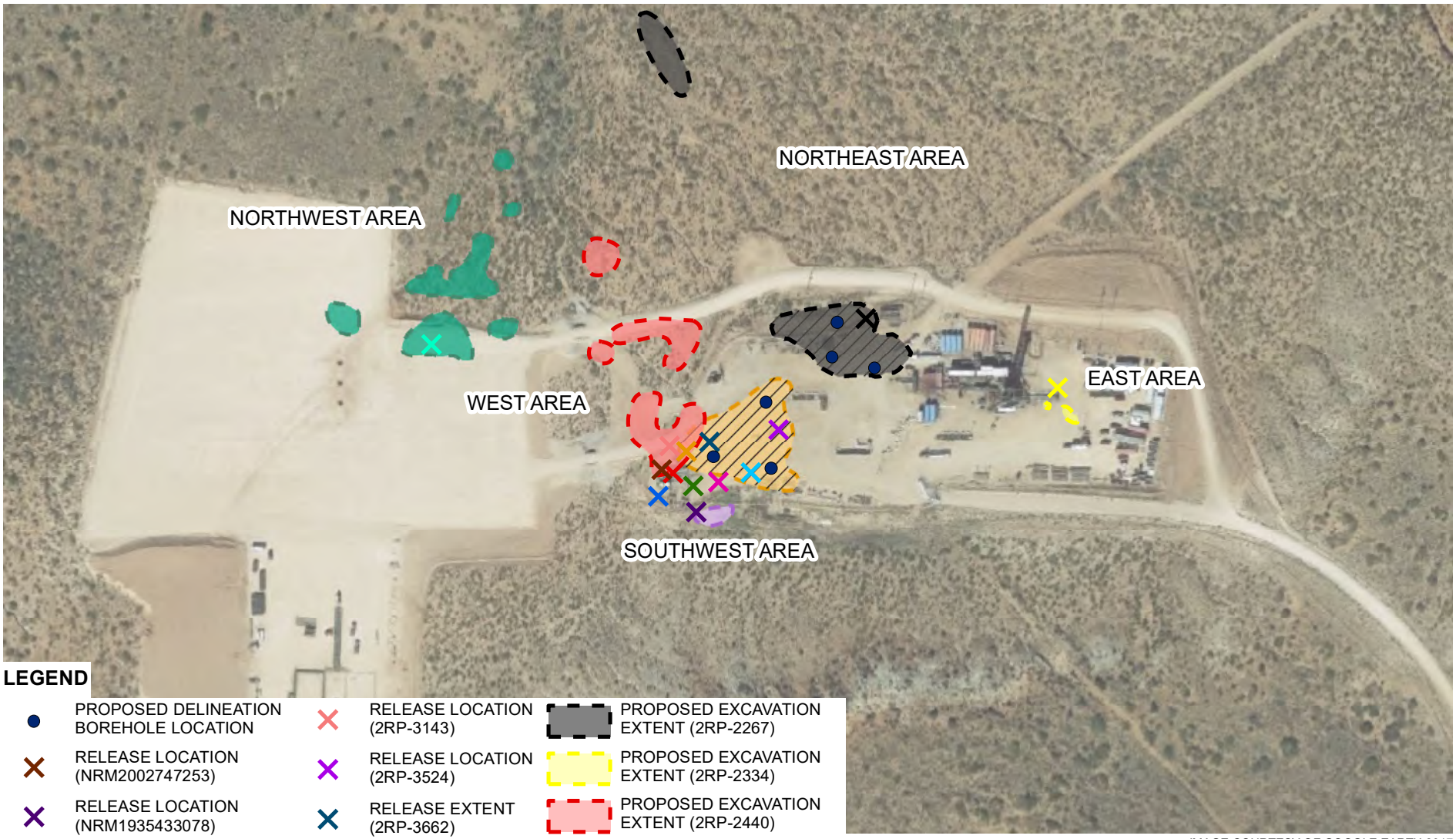


FIGURE 7
SOUTHWESTERN SOIL SAMPLE LOCATIONS
JRU DI-1
UNITS B, C, F, G & H SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG07_SOUTHWESTERN_EXCAVATION_2020_1.mxd



LEGEND

- PROPOSED DELINEATION BOREHOLE LOCATION
- RELEASE LOCATION (NRM2002747253)
- RELEASE LOCATION (NRM1935433078)
- RELEASE LOCATION (2RP-2267)
- RELEASE LOCATION (2RP-2334)
- RELEASE LOCATION (2RP-2440)
- RELEASE LOCATION (2RP-2782)
- RELEASE LOCATION (2RP-3046)
- RELEASE LOCATION (2RP-3143)
- RELEASE LOCATION (2RP-3524)
- RELEASE EXTENT (2RP-3662)
- RELEASE LOCATION (2RP-3864)
- RELEASE LOCATION (2RP-4528)
- RELEASE LOCATION (2RP-4625)
- RELEASE LOCATION (2RP-4756)
- PROPOSED EXCAVATION EXTENT (2RP-2267)
- PROPOSED EXCAVATION EXTENT (2RP-2334)
- PROPOSED EXCAVATION EXTENT (2RP-2440)
- PROPOSED EXCAVATION EXTENT (2RP-3046, 2RP-3143, 2RP-3864, 2RP-4528)
- PROPOSED EXCAVATION EXTENT (NRM1935433078)
- PROPOSED EXCAVATION EXTENT (2RP-4625)
- PROPOSED 20-MIL POLY LINER INSTALLATION

IMAGE COURTESY OF GOOGLE EARTH 2017

0 300 600
Feet

N

FIGURE 8
PROPOSED EXCAVATION AND LINER AREAS
JRU DI-1
UNITS B, C, F, & G SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG08_PROPOSED_EXCAVATION_2020.mxd

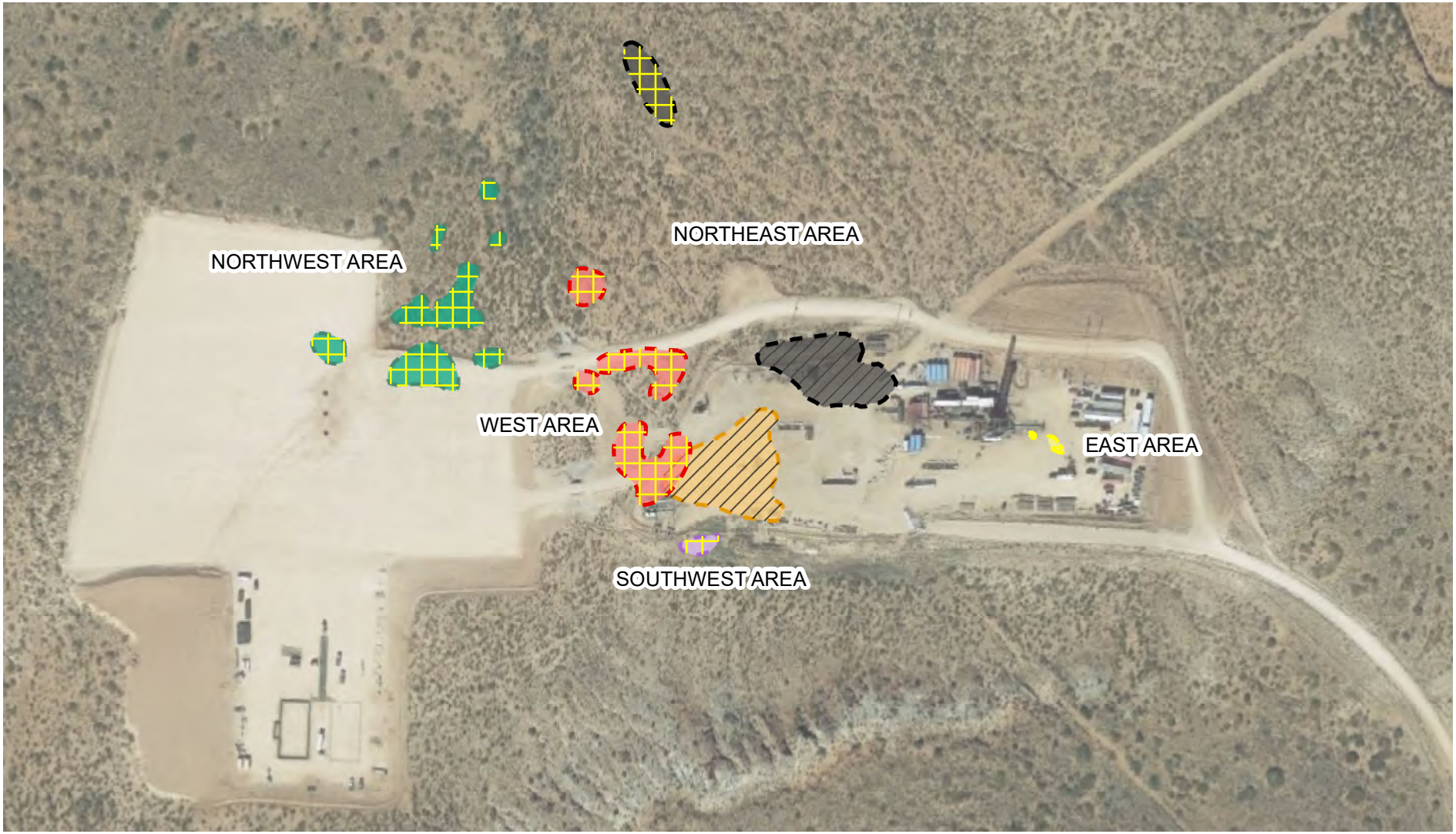


IMAGE COURTESY OF GOOGLE EARTH 2017

LEGEND

- 1,000 SQUARE FOOT GRID
- PROPOSED EXCAVATION EXTENT (2RP-2267)
- PROPOSED EXCAVATION EXTENT (2RP-2334)
- PROPOSED EXCAVATION EXTENT (2RP-2440)
- PROPOSED EXCAVATION EXTENT (2RP-3046, 2RP-3143, 2RP-3864, 2RP-4528)
- PROPOSED EXCAVATION EXTENT (NRM1935433078)
- PROPOSED EXCAVATION EXTENT (2RP-4625)
- PROPOSED 20-MIL POLY LINER INSTALLATION

0 300 600

Feet

N

FIGURE 9
PROPOSED CONFIRMATION SAMPLE GRID
JRU DI-1
UNITS B, C, F, & G SEC 21 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012917050_JRU_DI1\012917050_FIG09_PROPOSED_GRID_2020.mxd

TABLES

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
Northeast Area														
SS01	2RP-2267	0.5	12/20/2017	<0.000598	<0.00598	<0.000598	<0.00179	<0.00179	<0.120	<4.79	<4.79	<4.79	<4.79	201
SS02	2RP-2267	0.5	12/20/2017	<0.000522	<0.00522	<0.000522	<0.00157	<0.00157	<0.104	<4.17	<4.17	<4.17	<4.17	61.0
SS03	2RP-2267	0.5	12/20/2017	<0.000514	<0.00514	<0.000514	<0.00154	<0.00154	<0.103	<4.11	<4.11	<4.11	<4.11	40.2
SS04	2RP-2267	0.5	12/20/2017	<0.000544	<0.00544	<0.000544	<0.00163	<0.00163	<0.109	10.6	8.32	18.92	18.92	**9,470**
SS05	2RP-2267	0.5	12/20/2017	<0.000646	<0.00646	<0.000646	<0.00194	<0.00646	<0.129	<5.17	<5.17	<5.17	<5.17	211
SS06	2RP-2267	0.5	12/20/2017	<0.000552	<0.00531	<0.000531	<0.00159	0.000552	<0.106	12.8	14.6	27.4	27.40	66.7
PH01	2RP-2267	4	02/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**2,970**
PH01A	2RP-2267	16	02/26/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**6,410**
PH02	2RP-2267	3	02/26/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	41.1
PH02A	2RP-2267	4	02/26/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	61.5
PH03	2RP-2267	1	02/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	102
PH03A	2RP-2267	5.5	02/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	490
PH04	2RP-2267	1	02/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**713**
PH04A	2RP-2267	4	02/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**998**
PH05	2RP-2267	1	02/26/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	469
PH05A	2RP-2267	6	02/27/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**781**
PH06	2RP-2267	2	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,790**
PH06A	2RP-2267	5	02/27/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**2,560**
PH07	2RP-2267	2	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	185
PH07A	2RP-2267	4	02/27/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	519
PH08	2RP-2267	1	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	18.6	<15.0	18.6	18.6	117
PH08A	2RP-2267	4	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	**869**
PH09	2RP-2267	3	02/27/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**610**
PH09A	2RP-2267	11	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**899**
PH10	2RP-2267	1	02/27/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	315
PH10A	2RP-2267	4	02/27/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	274
PH11	2RP-2267	1	02/27/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	486
PH11A	2RP-2267	5	02/27/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	229
PH12	2RP-2267	2	02/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	31.4
PH12A	2RP-2267	4	02/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	52.2
PH13	2RP-2267	3	02/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	7.68
PH13A	2RP-2267	4	02/28/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	5.10
PH14	2RP-2267	2	02/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH14A	2RP-2267	4	02/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	29.7
PH15	2RP-2267	1	02/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	22.8
PH15A	2RP-2267	4	02/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
PH16	2RP-2267	2	02/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	9.07
PH16A	2RP-2267	4	02/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	76.0
PH17	2RP-2267	3	02/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH17A	2RP-2267	4	02/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	9.15
PH18	2RP-2267	3	02/28/2019	<0.00200	0.00364	0.00469	0.0160	0.0243	<15.0	<15.0	<15.0	<15.0	<15.0	492
PH18A	2RP-2267	4	02/28/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**617**
PH19	2RP-2267	1	02/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH19A	2RP-2267	4	02/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	14.5
BH01	2RP-2267	2	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98
BH01A	2RP-2267	4	12/09/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<49.9	<49.9	<49.9	<49.9	<49.9	75.10
BH02	2RP-2267	2	12/09/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	186
BH02A	2RP-2267	4	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	281
BH03	2RP-2267	2	12/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<9.94
BH03A	2RP-2267	4	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.96
BH04	2RP-2267	2	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
BH04A	2RP-2267	4	12/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	66.7
BH05	2RP-2267	2	12/09/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	<9.94
BH05A	2RP-2267	4	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	258
BH06	2RP-2267	2	12/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	23.9
BH06A	2RP-2267	4	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.88
BH07	2RP-2267	2	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	**943**
BH07A	2RP-2267	4	12/09/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	593
BH08	2RP-2267	4	01/07/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	17.7
BH09	2RP-2267	4	01/07/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	**792**
BH10	2RP-2267	4	01/07/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	106
BH11	2RP-2267	4	01/07/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	59.8
BH12	2RP-2267	4	01/07/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.1
Southwestern Area														
SS-1	2RP-3524	0.5	12/13/2017	0.00148	<0.00500	<0.000500	<0.00150	0.00148	<0.100	<20.0	37.2	<20.0	37.2	130
SS-2	2RP-3524	0.5	12/13/2017	0.000502	<0.00500	<0.000500	<0.00150	0.000502	<0.100	402	374	402	776	**4,590**
SS-3	2RP-3524	0.5	12/13/2017	0.00151	<0.00500	<0.000500	<0.00150	0.00151	<0.100	<4.00	<4.00	<4.00	<4.00	**33,000**
SS-4	2RP-3524	0.5	12/13/2017	0.00103	<0.00500	<0.000500	<0.00150	0.00103	<0.100	511	680	511	**1,191**	**2,930**
SS-5	2RP-3524	0.5	12/13/2017	0.00306	<0.00500	0.0007	0.00182	0.00558	<0.100	5.42	9.83	5	15	**6,020**
PH1	2RP-3524	1	02/08/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	196	38.3	196	**234**	**2,180**
PH1A	2RP-3524	5	02/08/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	41.6	<15.0	42	41.6	119
PH2	2RP-3524	1	02/08/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	<14.9	21.5
PH2A	2RP-3524	2	02/08/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	513

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
PH3	2RP-3524	1	02/08/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	202
PH3A	2RP-3524	2	02/08/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	49.9
PH4	2RP-3524	1	02/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	460
PH4A	2RP-3524	2	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	191
PH5	2RP-3524	5	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**3,270**
PH5A	2RP-3524	7	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	210
PH6	2RP-3524	2	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	**1,340**
PH6A	2RP-3524	4	02/11/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	272
PH7	2RP-3524	1	02/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	**933**
PH7A	2RP-3524	3	02/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	448
PH8	2RP-3524	3	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**860**
PH8A	2RP-3524	6	02/11/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	206
PH9	2RP-3524	1	02/11/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	**2,960**
PH9A	2RP-3524	7	02/11/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	75
PH10	2RP-3524	1	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,460**
PH10A	2RP-3524	2	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	380
PH11	2RP-3524	1	02/12/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	440
PH11A	2RP-3524	2	02/12/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	**2,460**
PH12	2RP-3524	1	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	15.8	<15.0	15.8	15.8	115
PH12A	2RP-3524	8	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	113
PH13	2RP-3524	1	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**994**
PH13A	2RP-3524	4	02/12/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	89.3
PH14	2RP-3524	3	02/12/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	**2,320**
PH14A	2RP-3524	13	02/12/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	69.6
PH15	2RP-3524	1	02/12/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	43.2
PH15A	2RP-3524	2	02/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	86.1
PH16	2RP-3524	1	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	76
PH16A	2RP-3524	2	02/13/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	167
PH17	2RP-3524	3	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,210**
PH17A	2RP-3524	7	02/13/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	65.1
PH18	2RP-3524	1	02/13/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	196
PH18A	2RP-3524	2	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	148
PH19	2RP-3524	1	02/13/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	33.4	<15.0	33.4	33.4	**1,200**
PH19A	2RP-3524	4	02/13/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	200
PH20	2RP-3524	1	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	61.4
PH20A	2RP-3524	2	02/13/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	241
PH21	2RP-3524	3	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,130**
PH21A	2RP-3524	4	02/13/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	230

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
PH22	2RP-3524	2	02/13/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	502
PH22A	2RP-3524	6	02/13/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	62.4
PH27	2RP-3524	1	02/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	20.3
PH27A	2RP-3524	2	02/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	27.1
PH28	2RP-3524	1	02/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**2,010**
PH28A	2RP-3524	5	02/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	264
PH29	2RP-3524	1	02/15/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	130
PH29A	2RP-3524	2	02/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	112
SS01	NRM1935433078	0.5	10/23/2019	<0.00198	0.0114	0.0113	0.0611	0.0838	<49.9	<49.9	<49.9	<49.9	<49.9	74.2
SS02	NRM1935433078	0.5	10/23/2019	0.00450	0.0954	0.0360	0.180	0.316	<49.8	<49.8	<49.8	<49.8	<49.8	**5,340**
SS03	NRM1935433078	0.5	10/23/2019	0.00361	0.319	0.228	1.09	1.64	442	2,230	248	2,670	**2,920**	**12,500**
SS04	NRM1935433078	0.5	10/23/2019	4.54	0.389	12.9	63.8	**81.6**	2,150	6,580	1,090	8,730	**9,820**	**14,200**
SS05	NRM1935433078	0.5	10/23/2019	0.0697	1.63	0.904	5.03	7.63	644	2,900	274	3,540	**3,820**	**9,400**
SS06	NRM1935433078	0.5	10/23/2019	4.07	68.9	25.3	125	**223**	3,900	8,620	1,020	12,500	**13,500**	**10,800**
SS07	NRM1935433078	0.5	10/23/2019	<0.00200	0.0150	<0.00200	0.0299	0.0449	<50.0	<50.0	<50.0	<50.0	<50.0	39.0
SS08	NRM1935433078	0.5	10/23/2019	<0.00202	<0.00202	<0.00202	0.00718	0.00718	<49.9	<49.9	<49.9	<49.9	<49.9	9.38
SS09	NRM1935433078	0.5	10/23/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	10.2
BH01	NRM1935433078	0.5	01/23/2020	1.16	21.2	9.05	41.1	72.5	2,020	3,770	432	5,790	**6,220**	**8,230**
BH01A	NRM1935433078	2	01/23/2020	0.0332	1.35	0.887	4.54	6.81	212	1,330	107	1,540	**1,650**	**9,310**
BH01B	NRM1935433078	7.5	01/23/2020	<0.0102	0.0936	0.0611	0.334	0.489	<50.3	748	115	748	**863**	**2,650**
BH02	NRM1935433078	0.5	01/23/2020	0.137	2.53	1.78	9.21	13.7	368	1,990	168	2,360	**2,530**	**13,700**
BH02A	NRM1935433078	2	01/23/2020	0.0212	0.220	0.126	0.709	1.08	<50.1	207	<50.1	207	**207**	**13,500**
BH02B	NRM1935433078	6.5	01/23/2020	0.0107	0.0691	0.0521	0.315	0.447	<50.1	161	<50.1	161	**161**	235
BH03	NRM1935433078	0.5	01/23/2020	0.0755	0.883	1.14	9.67	11.8	1,950	18,300	1750	20,300	**22,000**	**5,400**
BH03A	NRM1935433078	2	01/23/2020	<0.00201	0.00754	0.0108	0.0693	0.0876	<50.2	202	<50.2	202	**202**	182
BH03B	NRM1935433078	8	01/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	22.1
BH04	NRM1935433078	1	01/24/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	13.8
BH04A	NRM1935433078	4	01/24/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
BH04B	NRM1935433078	8	01/24/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<10.1
BH05	NRM1935433078	1	01/24/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	43.5
BH05A	NRM1935433078	4	01/24/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	12.7
BH05B	NRM1935433078	8	01/24/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	19.6
BH06	NRM1935433078	1	01/24/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
BH06A	NRM1935433078	4	01/24/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
BH06B	NRM1935433078	7.5	01/24/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
BH07	NRM1935433078	1	01/24/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	18.4
BH07A	NRM1935433078	4	01/24/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0
BH07B	NRM1935433078	8	01/24/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
SS-1	2RP-3662	2.5	12/20/2017	0.000914	<0.00600	<0.000600	<0.00180	0.000914	<0.120	<4.80	<4.80	<4.80	<4.80	63.4
SS-2	2RP-3662	1.5	12/20/2017	0.000813	<0.00661	<0.000661	<0.00198	0.000813	<0.132	<5.29	<5.29	<5.29	<5.29	<13.2
SS-3	2RP-3662	1.5	12/20/2017	0.00156	<0.00603	<0.000603	<0.00181	0.00156	<0.121	<4.83	<4.83	<4.83	<4.83	115
SS-4	2RP-3662	1.5	12/20/2017	0.00119	<0.00610	<0.000610	<0.00183	0.00119	<0.122	<4.88	<4.88	<4.88	<4.88	79.2
SS-5	2RP-3662	1.5	12/20/2017	<0.000558	<0.00558	<0.000558	<0.00167	<0.00167	<0.112	<4.46	<4.46	<4.46	<4.46	46.3
SS-6	2RP-3662	2	12/20/2017	0.000982	<0.00616	<0.000616	<0.00185	0.000982	<0.123	<4.93	<4.93	<4.93	<4.93	88.1
SS-7	2RP-3662	1.5	12/20/2017	<0.000679	<0.00679	<0.000679	<0.00204	<0.00679	<0.136	<5.43	<5.43	<5.43	<5.43	75.5
SS-8	2RP-3662	1.5	12/20/2017	<0.000653	<0.00653	<0.000653	<0.00196	<0.00653	<0.131	<5.23	<5.23	<5.23	<5.23	52.2
SS-9	2RP-3662	4	12/20/2017	0.000728	<0.00627	<0.000627	<0.00188	0.000728	<0.125	<5.01	<5.01	<5.01	<5.01	79.6
SS-1	2RP-4528	0.5	12/13/2017	0.00102	<0.00500	0.000887	0.0023	0.004207	0.286	17.1	10.2	17.1	27.5	**36,300**
SS-2	2RP-4528	0.5	12/13/2017	<0.000500	<0.00500	<0.000500	<0.00150	<0.00500	<0.100	7.45	8.72	7.45	16.1	**1,600**
SS-3	2RP-4528	0.5	12/13/2017	<0.000500	<0.00500	<0.000500	<0.00150	<0.00500	<0.100	10.8	11.3	10.8	22.1	**9,720**
SS-4	2RP-4528	0.5	12/13/2017	<0.000500	<0.00500	<0.000500	<0.00150	<0.00500	<0.100	8.04	<4.00	8.04	8.04	**8,240**
SS-5	2RP-4528	0.5	12/13/2017	<0.000500	<0.00500	<0.000500	<0.00150	<0.00500	<0.100	23.5	35.7	23.5	59.2	**7,510**
West Area														
PH01	2RP-2440	2	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	121
PH01A	2RP-2440	4	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	33.7
PH02	2RP-2440	1	07/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
PH02A	2RP-2440	4	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	12.0
PH03	2RP-2440	1	07/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	222
PH03A	2RP-2440	4	07/17/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	26.9
PH04	2RP-2440	1	07/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	86.0
PH04A	2RP-2440	4	07/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	7.48
PH05	2RP-2440	1	07/17/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
PH05A	2RP-2440	4	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	34.3
PH06	2RP-2440	1	07/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	19.3
PH06A	2RP-2440	4	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	6.64
PH07	2RP-2440	1	07/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	23.5
PH07A	2RP-2440	4	07/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
PH08	2RP-2440	1	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	44.9
PH08A	2RP-2440	4	07/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	16.1
PH09	2RP-2440	1	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	12.4
PH09A	2RP-2440	4	07/17/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**2,600**

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
PH10	2RP-2440	1	07/17/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH10A	2RP-2440	4	07/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	14.9
PH11	2RP-2440	1	07/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.05
PH11A	2RP-2440	4	07/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.05
PH12	2RP-2440	1	07/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	<5.05
PH12A	2RP-2440	4	07/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH13	2RP-2440	1	07/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.02
PH13A	2RP-2440	4	07/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99
PH14	2RP-2440	1	07/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	14.5
PH14A	2RP-2440	4	07/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.97
SS01	NRM2002747253	0.5	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	**6,290**
SS02	NRM2002747253	0.5	12/09/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	**9,230**
SS03	NRM2002747253	0.5	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	**6,230**
SS04	NRM2002747253	0.5	12/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	**4,300**
SS05	NRM2002747253	0.5	12/09/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	**3,290**
SS06	NRM2002747253	0.5	12/09/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<50.2	<50.2	<50.2	<50.2	<50.2	**1,710**
SS07	NRM2002747253	0.5	12/09/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	305
SS08	NRM2002747253	0.5	12/09/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	**858**
SS09	NRM2002747253	0.5	12/09/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	369
SS10	NRM2002747253	0.5	12/09/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	**660**
SS11	NRM2002747253	0.5	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	**610**
SS12	NRM2002747253	0.5	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	**623**
SS13	NRM2002747253	0.5	12/09/2019	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<50.1	<50.1	<50.1	<50.1	<50.1	**978**
SS14	NRM2002747253	0.5	12/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	**648**
East Area														
PH01	2RP-2334	2	2/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	393
PH01A	2RP-2334	4	2/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	65.1
PH02	2RP-2334	2	2/19/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	78.1
PH02A	2RP-2334	4	2/19/2019	<0.00200	0.0250	<0.00200	<0.00200	0.0250	<15.0	<15.0	<15.0	<15.0	<15.0	**793**
PH03	2RP-2334	1	2/19/2019	<0.00201	0.0193	<0.00201	<0.00201	0.0193	<15.0	19.2	<15.0	19.2	19.2	**806**
PH03A	2RP-2334	4	2/19/2019	<0.00199	0.0170	<0.00199	<0.00199	0.0170	<15.0	<15.0	<15.0	<15.0	<15.0	18
PH04	2RP-2334	2	2/19/2019	<0.00200	0.0149	<0.00200	<0.00200	0.0149	<15.0	<15.0	<15.0	<15.0	<15.0	113
PH04A	2RP-2334	4	2/19/2019	<0.00200	0.0135	<0.00200	<0.00200	0.0135	<15.0	<15.0	<15.0	<15.0	<15.0	130
PH05	2RP-2334	3	2/19/2019	<0.00199	0.0113	<0.00199	<0.00199	0.0113	<15.0	<15.0	<15.0	<15.0	<15.0	95.7
PH05A	2RP-2334	4	2/19/2019	<0.00201	0.0109	<0.00201	<0.00201	0.0109	<15.0	<15.0	<15.0	<15.0	<15.0	57.1

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
Northwest Area														
SS1	2RP-4625	0.5	2/5/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	297
SS2	2RP-4625	0.5	2/5/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	**666**
SS3	2RP-4625	0.5	2/5/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	555
SS4	2RP-4625	0.5	2/5/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	538
SS5	2RP-4625	0.5	2/5/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	511
SS6	2RP-4625	0.5	2/5/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99
SS7	2RP-4625	0.5	2/5/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	<5.00
SS8	2RP-4625	0.5	2/5/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	8.56
SS9	2RP-4625	0.5	2/5/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS10	2RP-4625	0.5	2/5/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	5.30
SS11	2RP-4625	0.5	2/5/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS12	2RP-4625	0.5	2/5/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,030**
SS01	2RP-4625	0.5	4/6/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	584
SS02	2RP-4625	0.5	4/6/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**7,280**
SS03	2RP-4625	0.5	4/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**2,330**
SS04	2RP-4625	0.5	4/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**4,390**
SS05	2RP-4625	0.5	4/6/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	**1,920**
SS06	2RP-4625	0.5	4/6/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**1,590**
SS07	2RP-4625	0.5	4/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	**3,680**
SS08	2RP-4625	0.5	4/6/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**2,680**
SS09	2RP-4625	0.5	4/6/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**4,630**
SS10	2RP-4625	0.5	4/6/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	6.17
SS11	2RP-4625	0.5	4/6/2018	<0.00198	0.00241	0.0142	<0.00198	0.0166	<15.0	<15.0	<15.0	<15.0	<15.0	**1,640**
SS12	2RP-4625	0.5	4/6/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	88.3
SS13	2RP-4625	0.5	4/6/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**995**
PH01	2RP-4625	1	7/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	20.1	<15.0	20.1	20.1	96.7
PH01A	2RP-4625	4	7/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH02	2RP-4625	2	7/15/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	23.5
PH02A	2RP-4625	4	7/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	6.81
PH03	2RP-4625	1	7/15/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	116
PH03A	2RP-4625	4	7/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	46.4
PH04	2RP-4625	1	7/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	128
PH04A	2RP-4625	4	7/15/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	11.8
PH05	2RP-4625	1	7/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	31.40
PH05A	2RP-4625	4	7/15/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
PH06	2RP-4625	1	7/15/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	94
PH06A	2RP-4625	4	7/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.99

Received by OCD: 12/11/2020 9:09:15 AM

TABLE 1
SOIL ANALYTICAL RESULTS

JRU DI COMBINED
REMEDIATION PERMIT NUMBER
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	RP numbers	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria				**10**	NE	NE	NE	**50**	NE	NE	NE	**NE**	**100**	**600**
PH07	2RP-4625	1	7/15/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	<5.02
PH07A	2RP-4625	4	7/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<4.98
PH08	2RP-4625	1	7/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	11.3
PH08A	2RP-4625	4	7/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	62.5
PH09	2RP-4625	1	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	13.4
PH09A	2RP-4625	2	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	57.5
PH09B	2RP-4625	3	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	526.0
PH09C	2RP-4625	4	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	**1,540.0**
PH09D	2RP-4625	5	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	474
PH10	2RP-4625	1	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	5.18
PH10A	2RP-4625	4	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.01
PH11	2RP-4625	2	7/16/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	**845**
PH11A	2RP-4625	4	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
PH12	2RP-4625	1	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	37.7
PH12A	2RP-4625	4	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	10.5
PH13	2RP-4625	3	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	165.0
PH13A	2RP-4625	4	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	531
PH14	2RP-4625	3	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	43.3
PH14A	2RP-4625	4	7/16/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	16.8	<15.0	16.8	16.8	103
PH15	2RP-4625	2	7/16/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	535
PH15A	2RP-4625	4	7/16/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
PH16	2RP-4625	2	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,150**
PH16A	2RP-4625	4	7/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	8.93
PH17	2RP-4625	2	7/17/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	117
PH17A	2RP-4625	4	7/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
PH18	2RP-4625	1	7/17/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	125
PH18A	2RP-4625	4	7/17/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<5.01
PH19	2RP-4625	1	7/16/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	6.88
PH19A	2RP-4625	4	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	50.5
PH19B	2RP-4625	5	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	11.7
PH20	2RP-4625	1	7/16/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
PH20A	2RP-4625	4	7/16/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division

DRO - diesel range organics
GRO - gasoline range organics ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
NMAC - New Mexico Administrative Code

Bold- indicates result exceeds the applicable regulatory standard
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
J3 - the association batch QC was outside the established quality control range for precision
J6 - the sample matrix interfered with the ability to make any accurate determination; spike value is low

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141

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

nHmP1411836637

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU-21 SWD-1	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-41074

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1508	North	1926	East	Eddy

Latitude N 32.381464 **Longitude** W 103.883210

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 1200 bbls.	Volume Recovered: 1000 bbls.
Source of Release: Frac tank overflow	Date and Hour of Occurrence: 4/14/14 approximately 8:30 a.m.	Date and Hour of Discovery: 4/14/14 at 4:30 p.m. by BOPCO
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD emergency #104 and the BLM	
By Whom? Tony Savoie	Date and Hour: 4/14/14 at 8:30 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
APR 24 2014
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The rig was filling the frac tanks on-site in preparation of running acid on the SWD well, the pumps were shut down however the valves were misaligned by the rig crew and the water continued to gravitate into the tanks from the Legg Federal SWD water source causing the frac tanks to overflow undetected.

Describe Area Affected and Cleanup Action Taken.*
The frac tanks were set inside a plastic lined containment. The frac containment overflowed into a secondary earthen containment that was breached allowing water to leave the pad area and travel down a dry drainage ditch then eventually spread out into the pasture area north of the drilling pad. The spill impacted approximately 7200 sq.ft. of pad area and approximately 2700 sq.ft. of pasture area. Approximately 800 bbls of produced water were recovered from the lined frac containment and approximately 200 bbls were recovered from the earthen backup containment. Remediation activities are scheduled to begin as soon as the BLM arch survey is cleared. The rig moved off location on 4/22/14.
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

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date:4/24/14 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 7/28/14 Expiration Date: NA

Conditions of Approval:
Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 5/28/14

Attached ☐

2RP-2267

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2267
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-2267
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 Coordinator_____

Signature:_____ _____ Date: _____

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-2267
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

nHMP1416331258

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU Drilling Island #1 Well #135H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-42376

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	21	22S	30E	1526	NORTH	1270	EAST	EDDY

Latitude N 32.381079 **Longitude** W 103.881948

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 15 bbls	Volume Recovered: 10 bbls
Source of Release: Off-load line to frac tank	Date and Hour of Occurrence: 6/4/14 approximately 2:00 p.m.	Date and Hour of Discovery: 6/4/14 approximately 2:00 p.m.
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 09 2014
RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Independence Rig #202 Was circulating the well during drilling operations. A vacuum truck on-site was pulling fluid from one of the return tanks, the vacuum hose was laid on the ground and the fluid from the tank syphoned out onto the ground.

Describe Area Affected and Cleanup Action Taken.*
The spill impacted approximately 200 sq.ft. of well pad area. The free standing fluid was recovered and the saturated soil was scraped up and stockpiled on site pending disposal. The final remediation will be done after the rig and equipment have been removed from the drill site.
The remediation activities will comply with 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

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 6/9/14 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 6/12/14 Expiration Date: NA

Conditions of Approval:
Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 7/12/14

Attached ☐

2RP-2334

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2334
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-2334
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 Coordinator_____

Signature:_____ _____ Date: _____

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-2334
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 13 2014
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

nAB1422639350 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: JRU-DI-1-JRU-21 SWD	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-41074

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1508	North	1926	East	Eddy

Latitude N 32.380643 **Longitude** W 103.884473

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 600 bbls.	Volume Recovered: 500 bbls.
Source of Release: SWD Pump	Date and Hour of Occurrence: 8/8/14 Time unknown	Date and Hour of Discovery: 8/8/14 at approximately 12:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher and Jim Amos (BLM)	
By Whom? Tony Savoie	Date and Hour: 8/8/14 at 1:26 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.*
An 8"x6" reducer failed on the suction side of the SWD horizontal pumps. The pumps shut down on low suction and the valves to the pump were manually closed. The fitting was replaced.

Describe Area Affected and Cleanup Action Taken.*
The SWD pumps were enclosed in 0 perm containment with a holding capacity of approximately 500 bbls. The fluid ran over the containment walls and impacted approximately 900 sq.ft. of caliche pad. The spill traveled off the pad via a narrow gully for approximately 750 ft. spread out and impacted approximately 6,400 sq.ft. of pasture area. All of the fluid on the pad and pasture area soaked into the ground. BOPCO is in the process of setting up an Arch survey to gain access to the area to be remediated.
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

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date:8/13/14 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 8/14/14 Expiration Date: N/A

Conditions of Approval:
Remediation per OCD Rule & Guidelines. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 2RP-2440

Attached ☐

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2440
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-2440
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 Coordinator_____

Signature:_____ _____ Date: _____

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-2440
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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
FEB 2 2015
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

nAB1503439598

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU-DI-1-JRU-21 SWD Pump	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-41074

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1508	North	1926	East	Eddy

Latitude N 32.380643 **Longitude** W 103.884473

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 120 bbls.	Volume Recovered: 112 bbls.
Source of Release: SWD Pump	Date and Hour of Occurrence: 1/31/15 at approx. 3:00 p.m.	Date and Hour of Discovery: 1/31/15 at approx. 3:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson, and Jim Amos (BLM)	
By Whom? Tony Savoie	Date and Hour: 1/31/15 at 6:01 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.*
A fiberglass connection failed on the suction line to the SWD H-pumps, the pumps were shut down and valves were closed to isolate the damaged area. Crews started re-building the suction line header the day of the spill.

Describe Area Affected and Cleanup Action Taken.*
The spill was mostly contained in the 0-perm containment around the SWD pumps. A vacuum truck recovered 110 bbls from the containment and approximately 2 bbls off the ground. The pad area that was impacted by the release was the same area as impacted by a previous spill, reference 2RP-2440. The area had been recently sampled and reviewed by the BLM. Remediation activities were scheduled to begin when the drilling equipment was moved off the location.
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
Printed Name: Tony Savoie	Approved by Environmental Specialist:
Title: Waste Management and Remediation Specialist	Approval Date: 2/3/15 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: 3/3/15 Attached ☐
Date: 2/2/15 Phone: 432-556-8730	2RP-2782

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-2782
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-2782
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 Coordinator_____

Signature:_____ _____ Date: _____

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-2782
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 12 2015
RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88240
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

nAB1516652299 2RP-737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: James Ranch Unit #012H	Facility Type: Production Well

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1450	North	1830	East	Eddy

Latitude 32.380677° **Longitude** -103.884454°

NATURE OF RELEASE

Type of Release Brine Water	Volume of Release 818 bbls	Volume Recovered 740 bbls
Source of Release Jet pump on triplex unit	Date and Hour of Occurrence 6/8/2015 Time unknown	Date and Hour of Discovery 6/8/2015 approx. 7 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Heather Patterson (NMOCD) and Jim Amos (BLM)	
By Whom? Tony Savoie	Date and Hour 9:34 am and 9:37 am respectively 6/8/15 @ 9:31am (according to notification)	
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.*
Vibration caused a bolt to shear off of the filter pot lid on the jet pump. Unit was LOTO until repairs can be made. Standing fluids were recovered from the ground and pump containments.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 43,350 square feet of well pad and 880 square feet of pasture on the north side of the pad. The impacted area will be delineated and addressed.

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: Amy Ruth
Title: Assistant Remediation Foreman
E-mail Address: ACRuth@basspet.com
Date: 6/10/2015 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: 6/16/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 7/17/15

2RP-3046

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3046
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-3046
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 Coordinator_____

Signature:_____ _____ Date: _____

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-3046
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

nAB1620256930 — 2RP-3143

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. — 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU-12H on the JRU-DI-Well pad	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1450	North	1830	East	Eddy

Latitude N 32.380666° Longitude W 103.884459°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 77 bbls.	Volume Recovered: 50 bbls
Source of Release: Suction strainer to Jet Pump	Date and Hour of Occurrence: 7/18/15, time unknown	Date and Hour of Discovery: 7/18/15 at approximately 8:30 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson and Jim Amos	
By Whom? Tony Savoie	Date and Hour: 7/19/15 at 5:15 a.m. (via e-mail)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 21 2015
RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A bolt on the jet pump suction strainer sheared off, releasing water on the well pad and containment. The transfer pump to the jet pump shut down on low discharge which automatically shut down the jet pump.

Describe Area Affected and Cleanup Action Taken.*
The release was partly contained in the 0 perm containment around the pump, the remainder of the fluid impacted approximately 1500 sq.ft. of caliche well pad. This area has had previous reportable spills. It was estimated that 40 bbls of PW was recovered from the containment and 10 bbls picked up from the pad.
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

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 7/21/15 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 7/21/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 8/22/15

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3143
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-3143
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 Coordinator_____

Signature:_____ _____ Date: _____

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-3143
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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
JAN 28 2016
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

nAB1602952102

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU #012H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1450	North	1830	East	Eddy

Latitude 32.380851° **Longitude** -103.883785°

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 22 bbls pw	Volume Recovered 5 bbls pw
Source of Release *Discharge flow line*	Date and Hour of Occurrence 1/18/2016 time unknown	Date and Hour of Discovery 1/18/2016 4:30 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher/Heather Patterson (NMOCD)	
By Whom? Amy Ruth	Date and Hour 1/19/2016 at 8:21 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.*
The discharge line from the triplex pump to the well head developed a leak below ground surface. Line was isolated, then excavated and repaired.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 7,135 ft² of well pad. Standing fluids were recovered.

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: Amy C. Ruth
Title: EHS Remediation Specialist
E-mail Address: ACRuth@basspet.com
Date: 1/27/2016 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Signed By
Approved by Environmental Specialist:
Approval Date: 1/29/16 Expiration Date: N/A
Conditions of Approval: Attached ☐
Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 3/1/16

2RP-3524

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3524
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-3524
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 Coordinator_____

Signature:_____ _____ Date: _____

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-3524
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

NAB1611933379

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: James Ranch Unit #12H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1450	North	1830	East	Eddy

Latitude 32.380700° Longitude -103.884298°

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release 24 bbls	Volume Recovered 10 bbls
Source of Release	Line Failure from Jet Pump to Well	Date and Hour of Occurrence 4/21/2016 time unknown	Date and Hour of Discovery 4/21/2016 2:20 pm
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	

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 27 2016
RECEIVED

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

Describe Cause of Problem and Remedial Action Taken.*
Collar on pressurized steel line corroded and fluids escaped to ground surface. Line was isolated and exposed. Line will be replaced.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 900 square feet of well pad. Standing fluids were recovered.

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: Amy C. Ruth
Title: EHS Remediation Specialist
E-mail Address: ACRuth@basspet.com
Date: 4/27/2016 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:
Approval Date: 4/28/16 Expiration Date: N/A
Conditions of Approval: Attached ☐
Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 5/28/16

2RP-3662

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3662
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-3662
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 Coordinator_____

Signature:_____ _____ Date: _____

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-3662
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 06 2016
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

nAB1625130938 210737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: JRU #012H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1600	North	2100	East	Eddy

Latitude 32.380535° Longitude -103.884395°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 65 bbl	Volume Recovered: 50 bbl
Source of Release: Jet Pump Suction Line	Date and Hour of Occurrence: 8/26/2016 time unknown	Date and Hour of Discovery: 8/26/2016 6:20 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher/Heather Patterson (NMOCD), Shelly Tucker (BLM)	
By Whom? Amy Ruth	Date and Hour 8/26/2016 at 7:15 pm by email	
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.*
The 4" poly suction line for the jet pump ruptured. The lease operator shut down the charge pump and isolated the valves. The section of line was repaired.

Describe Area Affected and Cleanup Action Taken.*
The leak affected approximately 7,000 square feet of caliche pad and was prevented from entering the pasture due to the berms surrounding the drill island. Vacuum trucks recovered standing fluid.

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

Printed Name: Amy C. Ruth

Title: EHS Remediation Specialist

E-mail Address: ACRuth@basspet.com

Date: 9/1/2016 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 9/6/16 Expiration Date: N/A

Conditions of Approval: Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 10/8/16 Attached ☐

2RP-3804

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3864
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 State of New Mexico
Page 4 Oil Conservation Division

Incident ID	
District RP	2RP-3864
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 Coordinator_____

Signature:_____  _____ Date: _____

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-3864
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
DEC 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 April 3, 2017

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

Release Notification and Corrective Action

nAB1736044200 BOPCO 210737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company XTO Energy	Contact Kyle Littrell
Address522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-221-7331
Facility Name: James Ranch Unit DI-1 #012H	Facility Type Exploration and Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-22162

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1550	north	2110	east	Eddy

Latitude 32.380659° **Longitude** -103.884436° NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 18 BPW	Volume Recovered 17 BPW
Source of Release Triplex jet pump	Date and Hour of Occurrence 12/6/2017 time unknown	Date and Hour of Discovery 12/6/2017 7 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	

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

Describe Cause of Problem and Remedial Action Taken.*
A 2"x3" swedge on the triplex jet pump failed. The well was shut in until repairs can be made.

Describe Area Affected and Cleanup Action Taken.*
The release affected the impermeable lined containment and approximately 1 bbl of PW misted outside containment and impacted roughly 1250 square feet of caliche pad. All free-standing liquids were recovered from the containment and the containment and equipment were power washed. XTO mapped the extent of the release visually then excavated impacted material from pad surface. Impacted gravel was taken to Lea Land for disposal. Soil samples were collected to confirm compliance with NMOCD site specific standards. A XTO Maintenance Supervisor who is competent in the operation, maintenance, and inspection of all on-site equipment and facilities visually inspected the containment and verified there was no visual evidence of a liner breach. XTO will provide a closure report documenting soil removal and disposal, confirmation soil sampling results, and any other site remediation activities to the NMOCD upon receipt of laboratory analytical results.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Kyle Littrell	Approved by Environmental Specialist:
Title: Environmental Coordinator	Approval Date: 12/26/17 Expiration Date: N/A
E-mail Address: Kyle_Littrell@xtoenergy.com	Conditions of Approval: See attached Attached ☒ 2RP-4528
Date: 12/15/2017 Phone: 432-221-7331	

* Attach Additional Sheets If Necessary

12/22/17AB

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4528
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-4528
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 Coordinator_____

Signature:_____ _____ Date: _____

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-4528
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 15 2018
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 April 3, 2017

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

Release Notification and Corrective Action

nAB1805036031 — 372710 — 240237

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: JRU DI 1 #127 (@ JRU DI 1A)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No: 30-015-43231

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	21	22S	30E	1290	North	2590	East	Eddy

Latitude 32.38141 **Longitude** -103.88592 NAD83

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 115 bbls	Volume Recovered: 25
Source of Release: Victaulic clamp connection on contractor trailer	Date and Hour of Occurrence: 2/3/2018 time unknown	Date and Hour of Discovery: 2/3/2018 2:15 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher/Crystal Weaver (NMOCD), Shelly Tucker/Jim Amos (BLM)	
By Whom? Amy Ruth	Date and Hour: 2/3/2018 7:13 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
A 10" Victaulic clamp became disconnected from a contractor trailer. Pumps were shut down and the clamp was properly reconnected. Fluids escaped the duck ponds to the ground. The trailer and associated tanks were placed within high-walled plastic lined containment until completion of the operation.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 21,000 square feet of caliche pad and extended approximately 350 feet North/Northeast into the pasture. Free standing fluids were recovered. An environmental contractor was retained to assist with the remediation and soil samples have been collected.

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

Signature: Kyle Littrell

Printed Name: Kyle Littrell

Title: Environmental Coordinator

E-mail Address: Kyle_Littrell@xtoenergy.com

Date: 2/15/2018 Phone: 432-221-7331

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 2/16/18 Expiration Date: N/A

Conditions of Approval: See Attached Attached ☐ 2RP-4625

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-4625
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-4625
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 Coordinator_____

Signature:_____ _____ Date: _____

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-4625
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

MAY 17 2018

DISTRICT II-ARTESIA O.C.D.

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 April 3, 2017

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

Release Notification and Corrective Action

nAB1814128830 BOPD 260737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: XTO Energy	Contact: Amy C. Ruth
Address: 3104 E. Greene St., Carlsbad, N.M. 88220	Telephone No: 575-689-3380
Facility Name: James Ranch Unit DI1 #157H	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No: 30-015-42607

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	21	22S	30E	1590	North	1885	East	Eddy

Latitude 32.380562° **Longitude** -103.88368° NAD83

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 13 bbls	Volume Recovered: 10 bbls
Source of Release: Temporary oil tank	Date and Hour of Occurrence: 5/4/2018 8 am	Date and Hour of Discovery: 5/4/2018 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	

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

Describe Cause of Problem and Remedial Action Taken.*
Due to a faulty head switch, a temporary oil tank at the flow back site overflowed. The head switch was repaired and the tank was returned to operation.

Describe Area Affected and Cleanup Action Taken.*
The release affected the southwest edge of the well pad. Free standing fluids were recovered. An environmental contractor will be retained to assist with delineation and 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: Amy Ruth

Printed Name: Amy C. Ruth

Title: Environmental Coordinator

E-mail Address: Amy_Ruth@xtoenergy.com

Date: 5/17/2018 Phone: 575-689-3380

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: 5/17/18 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐ 2RP-4756

* Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	NAB1814128830
District RP	2RP-4756
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 State of New Mexico
Page 4 Oil Conservation Division

Incident ID	NAB1814128830
District RP	2RP-4756
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 Coordinator_____

Signature:_____  _____ Date: _____

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

OCD Only

Received by: Cristina Eads Date: 12/09/2020

State of New Mexico
Oil Conservation Division

Incident ID	NAB1814128830
District RP	2RP-4756
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date:

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

OCD Only

Received by: Cristina Eads Date: 12/09/2020

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

Signature: Date: 12/11/2020

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	NRM1935433078
District RP	
Facility ID	
Application ID	

Release Notification

HIE9U-191101-C-1410

Responsible Party

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

Location of Release Source

Latitude 32.380435 Longitude -103.884174
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU DI 1 # 163	Site Type Well Location
Date Release Discovered 10/18/2019	API# *(if applicable)* 30-015-41694 (JRU DI 1 # 163)

Unit Letter	Section	Township	Range	County
G	21	22S	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) 0.41	Volume Recovered (bbls) 0.10
☒ Produced Water	Volume Released (bbls) 7.72	Volume Recovered (bbls) 1.90
	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 lease operator found a leak from a buried 3" steel flow line due to external corrosion. The well was shut-in until repairs were made on the flow line and the release remained on pad. Additional third party resources have been retained to assist in the remediation.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM1935433078
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
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: 11/1/2019

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Ramona Marcus Date: 12/20/2019

State of New Mexico
Oil Conservation Division

Incident ID	NRM1935433078
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM1935433078
District RP	
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM1935433078
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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	NRM2002747253
District RP	
Facility ID	
Application ID	

Release Notification

P5X0A-191211-C-1410

Responsible Party

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

Location of Release Source

Latitude 32.380679 Longitude -103.884438
(NAD 83 in decimal degrees to 5 decimal places)

Site Name JRU 21 SWD #1	Site Type SWD Location
Date Release Discovered 11/27/2019	API# *(if applicable)* 30-015-41074 (James Ranch Unit 21 SWD #1)

Unit Letter	Section	Township	Range	County
G	21	22S	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) 0.0	Volume Recovered (bbls) 0.0
☒ Produced Water	Volume Released (bbls) 579.92	Volume Recovered (bbls) 500.00
	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: Release was caused by the expansion joint/vibration damper on suction side of H-pump failing. Spill consisted of 480 bbls produced water into lined containment, all recovered. Another 79.92 bbls of produced water overflowed the containment and approximately 20 bbls was recovered from it. Additional third party resources have been retained to assist in the remediation.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002747253
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? YES – An unauthorized release of fluid over 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
YES, by Amy Ruth : Mike Bratcher; Rob Hamlet; Victoria Venegas; "Griswold, Jim, EMNRD"; blm_nm_cfo_spill@blm.gov; Crisha Morgan by email on November 27, 2019 at 8:15 AM.

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

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

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: Adrian Baker Title: SH&E Coordinator

Signature: [signature] Date: 12/11/2019

email: Adrian_Baker@xtoenergy.com Telephone: 4322363808

OCD Only

Received by: Ramona Marcus Date: 01/27/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002747253
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002747253
District RP	
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002747253
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

ATTACHMENT 2: SOIL BORING AND LITHOLOGIC LOGS

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

Identifier:	Date:
PH 16	02/13/2019
Project Name:	**RP Number:**
JRU DI 1	3524/3046.
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: HA
Lat/Long: / Field Screening: PID / CTS	Hole Diameter: 3.5" / Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
0850 D	364	0.4	N	1	0–1			silt/clay, Brown, low plasticity
0855 D	313	0.4	N	2	1–2			clay loam, Brown, low plasticity

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

Identifier:	Date:
PH17	02/13/2019
Project Name:	RP Number:
JRU DI 1	3524/3046
Logged By: GG	Method: HA
Hole Diameter: 3.5"	Total Depth: 7'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID / CTS

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
0915	D	1600	0.3	N	1	1			silt/clay/brown, medplasticity
0920	D	1600	0.3	N	2	2			clayloam/red/brown, medplasticity
0930	D	2291	0.8	N	3	3			clayloam/redbrown, medplasticity
0935	D	646	0.8	N	4	4			clayloam/redbrown, medplasticity
0945	D	646	0.6	N	5	5			clayloam/redbrown, medplasticity
0950	D	716	0.9	N	6	6			clay, loam red, lowplasticity
1000	D	313	0.1	N	7	7			clay, red, lowplasticity
						8			
						9			
						10			
						11			
						12			

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

Identifier:	Date:
PH 18	02/13/2018
Project Name:	**RP Number:**
JRU01	3524/3046
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: HA
Lat/Long:	Field Screening: PID/CTS / Hole Diameter: 3.5" / Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	364	0.8	N	1	0–1			silt/clay, Brown, low plasticity (1010)
D	268	0.4	N	2	1–2			clay loam, red/brown, low plasticity (1015)

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

Identifier:	Date:
PH19	02/13/2019
Project Name:	**RP Number:**
JRU DI 1	3524/3046
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: HA
Lat/Long:	Field Screening: PID / CTS / Hole Diameter: 7.5" / Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1100 D	1984	0.8	N	1	0–1			clayloam, redbrown, low plasticity
1115 D	1376	1.0	N	2	1–2			clayloam, redbrown, low plasticity
1125 D	928	1.5	N	3	2–3			clayloam, redbrown, low plasticity
1135 D	313	1.1	N	4	3–4			clayloam, brown, med plasticity
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier:	Date:
PH 20	02/13/2019
Project Name:	RP Number:
JRUDI 1	3046 / 3524
Logged By: GG	Method: HA
Lat/Long:	Field Screening: PID / LTS
Hole Diameter: 3.5"	Total Depth: 21

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
13					0			
1320 D	224	0.9	N	1	1			sandy/clay, red brown, med plasticity
1330 D	364	0.7	N	2	2			clayloam, Brown, low plasticity
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH21	Date: 02/13/2019
Project Name: JRU 011	RP Number: 3524/3046
Logged By: GG	Method: HA
Hole Diameter: 3.5"	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID / CTS

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1340 D	1600	0.8	N	1	1			sandy loam, light brown, low plasticity
1345 D	2131	0.7	N	2	2			clay loam, Brown, low plasticity
1400 D	2656	1.5	N	3	3			sandy loam, Dark brown, low plasticity
1405 D	416	1.7	N	21	4			Sandy loam, Dark brown, low plasticity
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH2I	02/13/2019
Project Name:	**RP Number:**
SRU DI I	3524/3046
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: HA
Lat/Long:	Field Screening: PID/CTS / Hole Diameter: 3.5" / Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1425 D	313	1.5	N	1	1			clay loam, Dark brown, med plasticity
1430 D	246	1.3	N	2	2			clay loam, Brown, med plasticity
1440 D	1094	1.1	N	3	3			sandy loam, Brown, low Plasticity
1445 D	1184	1.2	N	4	4			sandy loam, Brown, low plasticity
1455 D	1984	2.2	N	5	5			sandy loam, Brown, no plasticity
1500 D	224	0.8	N	6	6			sandy loam, Brown, no plasticity
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH28	Date:
Project Name:	RP Number:
Logged By:	Method:
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
0935	1464	0.3		1	1			sandy loam, light brown, noplasticity gravel
0940	1376	0.4		2	2			sandy loam, dark brown, low plasticity
0955	1376	0.7		3	3			sandy loam, brown, low plasticity
1000	646	0.3		4	4			sandy loam, brown, low plasticity
1030	524	2.5		5	5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH27	02/15/2019
Project Name:	**RP Number:**
JRVOI 1	3524/3046
Logged By: GG	**Method:** VEK
Lat/Long:	**Field Screening:** CTS/PID
Hole Diameter: 3.5"	**Total Depth:**

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	180	1.3		1	0 1			Sandy loam, red brown, low plasticity
0840								
0910	180	1.0		2	2 3 4 5 6 7 8 9 10 11 12			Sandy loam, red brown, low plasticity

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

Identifier: PH29	Date:
Project Name:	RP Number:

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
Lat/Long: Field Screening:	Hole Diameter: Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
	180	0.7		1	1			sandy loam, red/brown, med plasticity,
	180	1.4		2	2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

1420
1430

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

Identifier:	Date:
PH10	02/12/2019
Project Name:	RP Number:
JRU DI 1	3524/3046
Logged By: GG	Method: Auger
Field Screening: PID/CTS	Hole Diameter: 3.5"
Lat/Long:	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Time	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
0910	D	1600	0.4	N	1	0–1			clay loam, low plasticity, reddish brown
0920	D	524	0.5	N	2	1–2			clay loam, low plasticity, light brown
						2			
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Identifier: PH11	Date: 02/12/2019
Project Name: JRUDI 1	RP Number: 3524/3046
Logged By: G G	Method: Auger
Lat/Long:	Field Screening: PID/CTS
Hole Diameter: 3.5"	Total Depth: 2'

Comments:

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
0930 D	568	0.5		1	1			clay loam, red/brown, low plasticity
0940 D	180	0.1		2	2			clay loam, red/brown, low plasticity

0 3 4 5 6 7 8 9 10 11 12

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

Identifier:	Date:
PH12	02/12/2019
Project Name:	**RP Number:**
JRU DI 1	3524/3046
Logged By: GG	**Method:** HA
Lat/Long:	**Field Screening:** PID/CTS
Hole Diameter: 3.5"	**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			
950	332	0.3		1	1			clay loam, low plasticity, dark brown
000	~~332~~ 2464	0.3		2	2			clay loam, low plasticity, dark Brown
010	1376	0.6		3	3			clay loam dark brown, low plasticity
015	1376	0.5		4	4			clay loam dark red/brown, low plasticity
025	1649	0.7		5	5			clay loam, light red/brown, low plasticity
030	760	0.6		6	6			sandy loam, light brown, no plasticity
040	588	0.6		7	7			sandy ~~loam~~ /red/brown, no plasticity
050	180	0.6		8	8			sandy ~~loam~~ /red/brown, no plasticity
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH13	02/12/2019
Project Name:	**RP Number:**
JRUDI 1	3524 / 3046
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: HA
Lat/Long:	Field Screening: PID / CTS / Hole Diameter: 3.5" / Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1105 D	1484	0.6		1	1			clay loam, brown, low plasticity some gravel
1115 D	1376	0.6		2	2			clay loam, brown, low plasticity
1125 D	1376	0.6		3	3			clay loam, brown low plasticity
1130	180	0.5		4	4			clay loam, red/brown, low plasticity
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH14	Date: 02/12/2019
Project Name: JRUDI 1	RP Number: 3524 / 3046.
Logged By: GG	Method: HA
Hole Diameter: 3.5"	Total Depth: 13'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:
Field Screening: PID / CTS
Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						0			
1140		2131	0.2		1	1			clay loam, Brown, med plasticity
1150		3321	0.2		2	2			clay loam, red/brown, med plasticity
1240		3590	0.4		3	3			clay loam, red/brown, med plasticity
1250		2464	0.6		4	4			clay loam, Dark brown, low plasticity
1310		1600	0.4		5	5			clay loam, red brown, med plasticity
1315		1984	0.1		6	6			clay loam, red brown, med plasticity
1325		1984	0.6		7	7			clay loam, dark brown, med plasticity
1330		1484	0.7		8	8			clay loam, dark brown, med plasticity
1345		1184	0.6		9	9			clay loam, dark red, brown, med plasticity
					~~10~~	10			
1400		1011	0.9		10	11			Dark red brown, clay loam high clay med to high
1415		928	0.7		11	12			Dark red brown, clay loam high clay med to high plasticity.
1440		180	1.0		12	13			Dark red brown, clay loam

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

Identifier:	Date:
PH 15	02/12/2019
Project Name:	**RP Number:**
JRU OJI	3524/3046
Logged By: GG	**Method:** HA
Lat/Long:	**Field Screening:** PID/LTS
Hole Diameter: 3.5"	**Total Depth:** 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1445	313	0.8		1	1			
1455	268	0.4		2	2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
BH01	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	<128	0.9	NO	BH01	2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	<128	0.7	NO	BH01A	4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown

0 1 2 3 4 5 6 7 8 9 10 11 12

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

Identifier:	Date:
BH02	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	148	1.2	NO	BH02	0–2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	172	0.9	NO	BH02A	2–4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown



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

Identifier:	Date:
BH03	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	<128	1.7	NO	BH03	0–2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	<128	1.3	NO	BH03A	2–4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown



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

Identifier:	Date:
BH04	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	<128	1.7	NO	BH04	2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	244	1.9	NO	BH04A	4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown



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

Identifier:	Date:
BH05	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	<128	0.8	NO	BH05	2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	172	1.2	NO	BH05A	4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown

0 1 2 3 4 5 6 7 8 9 10 11 12

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

Identifier:	Date:
BH06	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	<128	1.8	NO	BH06	2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	<128	2.5	NO	BH06A	4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown



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

Identifier:	Date:
BH07	12/9/2019
Project Name:	RP Number:
JRU-21-SWD-1	2RP-2267

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM	Method: Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	Cl, TPH	4"	4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
DRY	696	1.5	NO	BH07	0–2		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown
DRY	388	1.8	NO	BH07A	2–4		SP	Fine SAND, Some SILT, Trace CLAY Non-Cohesive, Low Plasticity, Poorly Sorted, Red/Brown



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

Identifier:	Date:
PH1	02/08/2019
Project Name: JRU DI 1	RP Number:
Logged By:	Method:
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
				~~PH1~~	0			
D	3071	4.3	Yes	PH1	1			no plasticity, clay loam. Brownish red, high clay
D	716	0.9	N	PH1A	2			no plasticity, clay loam Redish brown
D	928 4.0	2.0	N	PH1B	3			NO Plasticity clay loan Rodish brown
D	646	0.2	N	PH1C	4			low plasticity clay loam, high clay Dark red Brown
D	467	0.0	N	PH1D	5			low plasticity, clay loam, high clay Dark red brown
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH2	Date:
Project Name:	RP Number:
Logged By:	Method:
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<180	0.1	N	PH2a	0–1			red noplasticity, clay/sand
D	<180	0.1	N	PH2a	1–2			red noplasticity, clay loam
					2–3			
					3–4			
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH3	Date:
Project Name:	RP Number:

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
Hole Diameter:	Total Depth:

Lat/Long: | Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D					0			
D	2156	0.0	N	PH3	1			gravel/sand - little clay, fine grained, no plasticity
D	524	0.0	N	PH3a	2			gravel/sand - little clay, light brown, no plasticity
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH4	02/01/2019
Project Name:	RP Number:
JRU DI 1	3524
Logged By: GG	Method: Hand Auger
Hole Diameter: 3.5"	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID / CTS

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	4716	0.3	N	1	0			
					1			dark red/brown, silt w/clay low plasticity
D	180	0.4	N	2	2			light red/brown, silty clay low plasticity
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH 5	2/11/2018
Project Name:	**RP Number:**
JRU OI 1	3524

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
G G	Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	PID / CTS	3.5"	

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	2854	0.0	N	1	0 1			silty clay, light brown Noplasticity
D	1280	0.0	N	2	2			silty clay light reddish Brown low plasticity
D	2654	0.3	N	3	3			clay loam, reddish brown low plasticity
D	3884	0.1	N	4	4			clay loam, light brown to tan low plasticity
D	3884	0.3	N	5	5			clay loam, tan, low plasticity
D	1011	0.2	N	6	6			sandy loam, reddish brown, noplasticity
					7			
D	268	0.3	N		8			sandy loam, reddish brown, noplasticity
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH6	2/11/2018
Project Name:	**RP Number:**
JRUDI 1	3524
Logged By: GG	**Method:** Hand Auger
Lat/Long:	**Field Screening:** PID/LEL
Hole Diameter: 3.5"	**Total Depth:**

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	1376	0.5	N	1	1			sandy loam, no plasticity, reddish brown
D	3321	0.5	N	2	2			sandy loam, no plasticity, reddish/brown
D	928	0.9	N	3	3			sandy loam, red, No plasticity
D	524	0.7	N	4	4			sand-y loam, red, No plasticity
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH7	02/11/2019
Project Name:	**RP Number:**
JRU DI 1	3524

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
GG	Hand auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
	PID/CTS	3.5"	

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	1484	0.4	N	1	1			silty clay, reddish brown, low plasticity
D	716	0.6	N	2	2			silty clay, reddish brown, low plasticity
D	524	0.7	N	3	3			silty clay, reddish brown, low plasticity
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH8	02/11/2019
Project Name:	RP Number:
JRU DI 1	3524
Logged By: GG	Method: Hand Auger
Field Screening: PID/LTS	Hole Diameter: 3.5"
Lat/Long:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	928	9.4	N	1	1			silty clay w/gravel light brown low plasticity
D	1094	16.4	N	2	2			silty clay Dark brown low Plasticity
D	1376	1.7	N	3	3			clay loam red/brown, low plasticity
D	1280	1.3	N	4	4			clay loam, red brown, low plasticity
D	646	0.9	N	5	5			clay loam red/brown, med plasticity
D	467	0.9	N	6	6			clay loam red/brown, med Plasticity
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH09	02/11/2019
Project Name:	**RP Number:**
JRU DI 1	3524
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: GG / Method: Hand Auger
Lat/Long:	Field Screening: PID/CTS / Hole Diameter: 3.5" / Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	3884	1.0	N	1	0–1			silt/clay, Brown, low plasticity
	2854	1.0	N	2	1–2			clayloam, Red/brown, medplasticity
	2854	0.4	N	3	2–3			clayloam, Brown, medplasticity
	2656	0.9	N	4	3–4			clayloam brown, lowplasticity
	1011	0.8	N	5	4–5			clayloam, brown, lowplasticity
	716	0.8	N	6	5–6			clayloam, brown, low plasticity
	180	0.4	N	7	6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH01	Date: 02/26/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2667
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	2428	0.6	N		0–1	1'	S	Clayey Sand Poor grade
dry	2076	0.5	N		2	2'	S	Clayey Sand Poorgrade
dry	2428	0.3	N		3	3'	S	Sandy Clay Poor grade
dry	2244	0.1	N		4	4'	S	Sand trace Clay Poor grade
					5			
dry	3284	0.1	N		6	6'	S	Sand trace Clay Poor grade
					7			
dry	3580	0.6	N		8	8.5'	S	Sand trace Clay Poor grade
					9			
dry	3580	0.6	N		10	10'	S	Sand trace Clay Poor grade
					11			
dry	3580	0.4	N		12–13	14'	S	Sand trace Clay Poor grade

LT Environmental, Inc.

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: PH02	Date: 02/26/19
Project Name: JRU 01 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	0.1	N		0–1	1'	S	Sand trace Clay Poor grade
dry	<128	0.1	N		2	2'	S	Sand trace Clay Poor grade
dry	<128	0.4	N		3	3'	S	Clayey Sand Poor grade
dry	<128	0.4	N		4	4'	S	Clayey Sand Poor grade
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: PH03	Date: 02/26/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2'	Total Depth: 5.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	1.4	N		0–1	1'	S	Sand trace Clay Poor grade
dry	<128	0.8	N		1–2	2'	S	Sand trace Clay Poor grade
dry	328	0.4	N		2–3	3'	S	Clayey Sand Medium grade
dry	720	0.1	N		3–4	4'	S	Clayey Sand Medium grade
dry	488	0.6	N		4–5	5.5'	S	Clayey Sand Medium grade

0 1 2 3 4 5 6 7 8 9 10 11 12

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

Identifier: PH04	Date: 02/26/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 6'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	580	0.4	N		0–1	1'	S	Sand trace Clay PG
dry	1240	1.1	N		1–2	2'	S	Sand trace Clay PG
dry	800	0.4	N		2–3	3'	S	Sand trace Clay MG
dry	684	0.1	N		3–4	4'	S	Sand trace Clay MG
dry	532	0.1	N		4–6	6'	S	~~Sand~~ Clayey Sand MG

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

Identifier: PH05	Date: 02/26/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	380	3.2	N		0–1	1'	S	Sand trace Clay PG
dry	916	0.4	N		1–2	2'	S	Sand trace Clay PG
dry	1060	0.7	N		2–3	3'	S	Sand trace Clay MG
dry	1060	0.4	N		3–4	4'	S	Clayey Sand MG
dry	628	0.3	N		5–6	6'	S	Sand trace Clay PG

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

Identifier: PH06	Date: 02/27/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M	Method: Pot hole
Hole Diameter: 2 ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	1140	0.1	N		0–1	1'	S	Clayey Sand PG
dry	852	1.2 RM	N		1–2	2'	S	Clayey Sand PG
dry	1224	0.1	N		2–3	3'	S	Sandy Clay MG
dry	1896	0.2	N		3–4	4'	S	Sandy Clay PG
dry	1760	0.1	N		4–5	5'	S	Sand trace Clay MG

6 7 8 9 10 11 12

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

Identifier: PH07	Date: 02/27/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot Hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	2128	0.1	N		0–1	1'	S	Clayey Sand MG
dry	<128	0.4	N		1–2	2'	S	Clayey Sand MG
dry	<128	0.3	N		2–3	3'	S	Sand trace Clay MG
dry	380	0.3	N		3–4	4'	S	Sand trace Clay MG
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH08	Date: 02/27/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	0.4	N		0–1	1'	S	Sand trace Clay MG
dry	<128	0.3	N		1–2	2'	S	Sand trace Clay MG
dry	<128	0.3	N		2–3	3'	S	Sand trace Clay MG
dry	580	0.1	N		3–4	4'	S	Clayey Sand MG

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

Identifier: PH09	Date: 02/27/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M	Method: Pot hole
Hole Diameter: 2Pt	Total Depth: 11'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	580	0.8	N		0–1	1'		Clayey Sand PG
dry	380	0.9	N		1–2	2'		Clayey Sand PG
dry	492	1.3	N		2–3	3'		Clayey Sand MG
dry	1524	0.7	N		3–4	4'		Clayey Sand MG
dry	1524	0.7	N		4–5	5'		Sand trace Clay PG
Moist	1524	1.4	N		7–8	8'		Sand trac Clay PG
Moist	580	0.4	N		10–11	11'		Clayey Sand MG-HG

LT Environmental, Inc.

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: PH10	Date: 02/27/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	0.6	N		0–1	1'	S	Sand trace Clay MG-HG
dry	<128	0.4	N		1–2	2'	S	Sand trace Clay MG-HG
dry	<128	0.4	N		2–3	3'	S	Sand trace Clay PG-MG
dry	<128	0.5	N		3–4	4'	S	Sand trace Clay MG-HG

4 5 6 7 8 9 10 11 12

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

Identifier: PH11	Date: 02/27/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	368	3.2	N		0–1	1'	S	Sand trace clay MG
dry	368	0.1	N		1–2	2'	S	Clayey Sand MG
dry	1000	0.7	N		2–3	3'	S	Clayey Sand MG
dry	1072	1.4	N		3–4	4'	S	Sand trace Clay MG
dry	<128	0.8	N		5–6	6'	S	Sand trace Clay PG

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

Identifier: PH12	Date: 02/28/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	1.1	N		0–1	1'	S	Sand trace clay PG
dry	<128	2.0	N		1–2	2'	S	Sand trace Clay PG
dry	<128	1.8	N		2–3	3'	S	Sand trace Clay PG
dry	<128	0.9	N		3–4	4'	S	Sand trace Clay PG

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

Identifier: PH13	Date: 02/28/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2'	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	1.1	N		0–1	1'	S	Sand trace Clay
dry	<128	2.0	N		1–2	2'	S	Sand trace Clay
dry	<128	1.8	N		2–3	3'	S	Sand trace Clay
dry	<128	0.9	N		3–4	4'	S	Sand trace Clay
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

LT Environmental, Inc.

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: PH14	Date: 02/28/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Robert M. / Method: Pot hole
Lat/Long: / Field Screening:	Hole Diameter: 24" / Total Depth: 4'
Comments:	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	1.3	N		0–1	1'	S	Sand trace Clay PG
dry	<128	2.3	N		2	2'	S	Sand trace Clay PG
dry	<128	0.9	N		3	3'	S	Sand trace Clay PG
dry	<128	0.7	N		4	4'	S	Sand trace Clay PG
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH15	Date: 02/28/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
	<128	3.1	N		0–1	1'	S	Sand trace Clay PG
	<128	1.7	N		1–2	2'	S	Sand trace Clay PG
	<128	0.7	N		2–3	3'	S	Sand trace Clay PG
	<128	0.9	N		3–4	4'	S	Sand trace Clay PG
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH16	Date: 02/28/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	1.6	N		0–1	1'	S	Sand trace Clay Mg
dry	<128	4.2	N		1–2	2'	S	Sand trace Clay Pg
dry	<128	2.5	N		2–3	3'	S	~~Sand trace Clay~~ Clayey Sand PG
dry	<128	2.5	N		3–4	4'	S	Sand trace Clay PG
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH17	Date: 02/28/19
Project Name: JRU DI 1 SWD	RP Number: 2RP-2267
Logged By: Robert M.	Method: Pot hole
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	2.5	N		0–1	1'	S	Sand trace Clay MG
dry	<128	1.6	N		1–2	2'	S	Sand trace Clay MG
dry	<128	2.6	N		2–3	3'	S	Sand trace Clay MG
dry	<128	2.6	N		3–4	4'	S	Sand trace Clay MG
					4–5			
					5–6			
					6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

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

Identifier: PH18	Date: 02/28/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
Logged By: Roberto M.	Method: Pot hole
Lat/Long:	Field Screening:
Hole Diameter: 2ft	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	0.4	N		0–1	1'	S	Sand trace Clay MG
dry	<128	2.4	N		1–2	2'	S	Sand trace Clay PG
Moist	368	4.5	N		2–3	3'	S	Clayey Sand PG
Moist	368	3.5	N		3–4	4'	S	Sand trace clay PG
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH19	Date: 02/28/19
Project Name: JRV DI 1 SWD	RP Number: 2RP-2267
LITHOLOGIC / SOIL SAMPLING LOG Logged By: Robert M.	Method: Pot hole
Lat/Long: Field Screening:	Hole Diameter: 2ft / Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	<128	3.7	N		0–1	1'	S	Sand trace Clay MG
dry	<128	1.2	N		2	2'	S	Sand trace Clay PG-MG
dry	<128	1.2	N		3	3'	S	Sand trace Clay PG-MG
dry	<128	2.6	N		4	4'	S	Sand trace Clay PG-MG

5 6 7 8 9 10 11 12

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG



Photograph 1: Active drilling operations onsite, view NW.



Photograph 2 (2RP-2267): On pad fluid prior to recovery, Northeast Area.



Photograph 3 (2RP-3524): Release extent on pad, Southwest Area.



Photograph 4 (2RP-3662): Repair at excavation extent, Southwest Area.

JRU DI-1
Eddy County, New Mexico
Photographs Taken Between December 2017 to Present

A proud member of WSP



Photograph 5 (2RP-3662): Excavation extent, Southwest Area.



Photograph 6 (2RP-4528): Release location, Southwest Area.



Photograph 7 (2RP-4625): Release flow path, Northwest Area.



Photograph 8 (2RP-4625): Release extent, Northwest Area.



Photograph 9 (2RP-4756): Release extent, Southwest Area.



Photograph 10 (NRM2002747253): Release point/pad surface, West Area.



Photograph 11 (NRM1935433078): Release extent prior to fluid recovery, Southwest Area.



Photograph 12 (NRM2002747253): Release extent in pasture, West Area.

A proud member of WSP

ATTACHMENT 4: ANALYTICAL DATA

ANALYTICAL REPORT

January 03, 2018

XTO Energy- Delaware Division

Sample Delivery Group:	L959669
Samples Received:	12/23/2017
Project Number:	30-015-41074
Description:	Confirmation Soil Samples
Site:	JRU-21 SWD-1
Report To:	Kyle Littrell 6401 N Holiday Hill Rd Suite 200 Midland, TX 79707

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

SS-1 L959669-01 5

SS-2 L959669-02 6

SS-3 L959669-03 7

SS-4 L959669-04 8

SS-5 L959669-05 9

SS-6 L959669-06 10

Qc: Quality Control Summary 11

Total Solids by Method 2540 G-2011 11

Wet Chemistry by Method 300.0 13

Volatile Organic Compounds (GC) by Method 8015/8021 14

Semi-Volatile Organic Compounds (GC) by Method 8015 16

Gl: Glossary of Terms 17

Al: Accreditations & Locations 18

Sc: Sample Chain of Custody 19

SS-1 L959669-01 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 10:50	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058629	1	01/02/18 08:57	01/02/18 09:06	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 01:20	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 13:21	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 20:26	ACM

SS-2 L959669-02 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 10:55	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058629	1	01/02/18 08:57	01/02/18 09:06	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 01:46	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 13:43	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 21:10	ACM

SS-3 L959669-03 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 10:57	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 01:54	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 14:05	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 21:24	ACM

SS-4 L959669-04 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 10:59	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	20	12/26/17 21:16	12/27/17 02:03	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 14:27	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 21:38	ACM

SS-5 L959669-05 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 11:01	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 02:11	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 14:49	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 21:53	ACM

SS-6 L959669-06 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 11:04	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 02:37	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057763	1	12/27/17 13:20	12/28/17 15:11	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058555	1	01/01/18 21:46	01/02/18 22:07	ACM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	01/02/2018 09:06	WG1058629

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	201		12.0	1	12/27/2017 01:20	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000598	1	12/28/2017 13:21	WG1057763
Toluene	ND		0.00598	1	12/28/2017 13:21	WG1057763
Ethylbenzene	ND		0.000598	1	12/28/2017 13:21	WG1057763
Total Xylene	ND		0.00179	1	12/28/2017 13:21	WG1057763
TPH (GC/FID) Low Fraction	ND		0.120	1	12/28/2017 13:21	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*92.4*		*77.0-120*		*12/28/2017 13:21*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*98.6*		*75.0-128*		*12/28/2017 13:21*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND	J3 J6	4.79	1	01/02/2018 20:26	WG1058555
C28-C40 Oil Range	ND		4.79	1	01/02/2018 20:26	WG1058555
(S) o-Terphenyl	*61.0*		*18.0-148*		*01/02/2018 20:26*	WG1058555

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	01/02/2018 09:06	WG1058629

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	61.0		10.4	1	12/27/2017 01:46	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000522	1	12/28/2017 13:43	WG1057763
Toluene	ND		0.00522	1	12/28/2017 13:43	WG1057763
Ethylbenzene	ND		0.000522	1	12/28/2017 13:43	WG1057763
Total Xylene	ND		0.00157	1	12/28/2017 13:43	WG1057763
TPH (GC/FID) Low Fraction	ND		0.104	1	12/28/2017 13:43	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*92.1*		*77.0-120*		*12/28/2017 13:43*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*98.0*		*75.0-128*		*12/28/2017 13:43*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.17	1	01/02/2018 21:10	WG1058555
C28-C40 Oil Range	ND		4.17	1	01/02/2018 21:10	WG1058555
(S) o-Terphenyl	*44.9*		*18.0-148*		*01/02/2018 21:10*	WG1058555

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.3		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	40.2		10.3	1	12/27/2017 01:54	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000514	1	12/28/2017 14:05	WG1057763
Toluene	ND		0.00514	1	12/28/2017 14:05	WG1057763
Ethylbenzene	ND		0.000514	1	12/28/2017 14:05	WG1057763
Total Xylene	ND		0.00154	1	12/28/2017 14:05	WG1057763
TPH (GC/FID) Low Fraction	ND		0.103	1	12/28/2017 14:05	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*91.9*		*77.0-120*		*12/28/2017 14:05*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*98.1*		*75.0-128*		*12/28/2017 14:05*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.11	1	01/02/2018 21:24	WG1058555
C28-C40 Oil Range	ND		4.11	1	01/02/2018 21:24	WG1058555
(S) o-Terphenyl	*18.1*		*18.0-148*		*01/02/2018 21:24*	WG1058555

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	9470		218	20	12/27/2017 02:03	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000544	1	12/28/2017 14:27	WG1057763
Toluene	ND		0.00544	1	12/28/2017 14:27	WG1057763
Ethylbenzene	ND		0.000544	1	12/28/2017 14:27	WG1057763
Total Xylene	ND		0.00163	1	12/28/2017 14:27	WG1057763
TPH (GC/FID) Low Fraction	ND		0.109	1	12/28/2017 14:27	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*91.9*		*77.0-120*		*12/28/2017 14:27*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*97.9*		*75.0-128*		*12/28/2017 14:27*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	10.6		4.35	1	01/02/2018 21:38	WG1058555
C28-C40 Oil Range	8.32		4.35	1	01/02/2018 21:38	WG1058555
(S) o-Terphenyl	*55.8*		*18.0-148*		*01/02/2018 21:38*	WG1058555

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.4		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	211		12.9	1	12/27/2017 02:11	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000646	1	12/28/2017 14:49	WG1057763
Toluene	ND		0.00646	1	12/28/2017 14:49	WG1057763
Ethylbenzene	ND		0.000646	1	12/28/2017 14:49	WG1057763
Total Xylene	ND		0.00194	1	12/28/2017 14:49	WG1057763
TPH (GC/FID) Low Fraction	ND		0.129	1	12/28/2017 14:49	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*92.6*		*77.0-120*		*12/28/2017 14:49*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*99.2*		*75.0-128*		*12/28/2017 14:49*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		5.17	1	01/02/2018 21:53	WG1058555
C28-C40 Oil Range	ND		5.17	1	01/02/2018 21:53	WG1058555
(S) o-Terphenyl	*52.1*		*18.0-148*		*01/02/2018 21:53*	WG1058555

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	66.7		10.6	1	12/27/2017 02:37	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000552		0.000531	1	12/28/2017 15:11	WG1057763
Toluene	ND		0.00531	1	12/28/2017 15:11	WG1057763
Ethylbenzene	ND		0.000531	1	12/28/2017 15:11	WG1057763
Total Xylene	ND		0.00159	1	12/28/2017 15:11	WG1057763
TPH (GC/FID) Low Fraction	ND		0.106	1	12/28/2017 15:11	WG1057763
(S) a,a,a-Trifluorotoluene(FID)	*91.7*		*77.0-120*		*12/28/2017 15:11*	WG1057763
(S) a,a,a-Trifluorotoluene(PID)	*98.0*		*75.0-128*		*12/28/2017 15:11*	WG1057763

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	12.8		4.25	1	01/02/2018 22:07	WG1058555
C28-C40 Oil Range	14.6		4.25	1	01/02/2018 22:07	WG1058555
(S) o-Terphenyl	*55.2*		*18.0-148*		*01/02/2018 22:07*	WG1058555

QUALITY CONTROL SUMMARY

L959669-01,02

Total Solids by Method 2540 G-2011

Method Blank (MB)

(MB) R3277134-1 01/02/18 09:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.002			

L959664-01 Original Sample (OS) • Duplicate (DUP)

(OS) L959664-01 01/02/18 09:06 • (DUP) R3277134-3 01/02/18 09:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.6	94.2	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3277134-2 01/02/18 09:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

QUALITY CONTROL SUMMARY

L959669-03,04,05,06

Total Solids by Method 2540 G-2011

ONE LAB.

Method Blank (MB)

(MB) R3277132-1 01/02/18 08:25

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0			

L959669-06 Original Sample (OS) • Duplicate (DUP)

(OS) L959669-06 01/02/18 08:25 • (DUP) R3277132-3 01/02/18 08:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.1	93.7	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3277132-2 01/02/18 08:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3275848-1 12/26/17 23:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		0.795	10.0

L959663-01 Original Sample (OS) • Duplicate (DUP)

(OS) L959663-01 12/27/17 00:29 • (DUP) R3275848-4 12/27/17 00:37

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	242	245	1	1.31		20

L959672-09 Original Sample (OS) • Duplicate (DUP)

(OS) L959672-09 12/27/17 04:10 • (DUP) R3275848-7 12/27/17 04:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	63.5	62.2	1	2.06		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275848-2 12/26/17 23:38 • (LCSD) R3275848-3 12/26/17 23:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chloride	200	197	197	98.7	98.5	90-110			0.198	20

L959669-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959669-05 12/27/17 02:11 • (MS) R3275848-5 12/27/17 02:20 • (MSD) R3275848-6 12/27/17 02:28

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	646	211	845	914	98.2	109	1	80-120			7.76	20

QUALITY CONTROL SUMMARY

L959669-01,02,03,04,05,06

Volatile Organic Compounds (GC) by Method 8015/8021

ONE LAB.

Method Blank (MB)

(MB) R3276845-5 12/28/17 11:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000246	J	0.000150	0.00500
Ethylbenzene	0.000114	J	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0218	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*102*			*75.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3276845-1 12/28/17 09:34 • (LCSD) R3276845-2 12/28/17 09:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0450	0.0430	90.0	86.0	71.0-121			4.65	20
Toluene	0.0500	0.0464	0.0434	92.8	86.9	72.0-120			6.56	20
Ethylbenzene	0.0500	0.0482	0.0455	96.5	90.9	76.0-121			5.94	20
Total Xylene	0.150	0.143	0.133	95.2	88.9	75.0-124			6.81	20
(S) a,a,a-Trifluorotoluene(FID)				*94.4*	*94.7*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*99.7*	*99.9*	*75.0-128*				

Laboratory Control Sample (LCS)

(LCS) R3276845-3 12/28/17 10:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.92	89.4	70.0-136	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*113*	*75.0-128*	

Laboratory Control Sample (LCS)

(LCS) R3276845-4 12/28/17 10:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.11	93.0	70.0-136	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*118*	*75.0-128*	

L959663-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959663-04 12/28/17 12:36 • (MS) R3276845-6 12/28/17 18:08 • (MSD) R3276845-7 12/28/17 18:30

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0520	ND	0.00589	0.0225	10.8	42.8	1	10.0-146		J3	117	29
Toluene	0.0520	ND	0.00248	0.0152	3.96	28.4	1	10.0-143	J6	J3	144	30
Ethylbenzene	0.0520	ND	0.00139	0.00995	2.43	18.9	1	10.0-147	J6	J3	151	31
Total Xylene	0.156	ND	0.00453	0.0288	2.39	17.9	1	10.0-149	J6	J3 J6	146	30
(S) a,a,a-Trifluorotoluene(FID)					*84.9*	*87.0*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*90.5*	*92.5*		*75.0-128*				

L959663-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959663-04 12/28/17 12:36 • (MS) R3276845-8 12/28/17 18:52 • (MSD) R3276845-9 12/28/17 19:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.72	ND	0.683	0.983	10.4	15.7	1	10.0-147		J3	36.1	30
(S) a,a,a-Trifluorotoluene(FID)					*89.8*	*89.9*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*94.0*	*93.9*		*75.0-128*				

Method Blank (MB)

(MB) R3277017-1 01/02/18 10:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*61.3*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3277017-2 01/02/18 11:03 • (LCSD) R3277017-3 01/02/18 11:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	38.0	32.7	63.4	54.5	50.0-150			14.9	20
(S) o-Terphenyl				*66.5*	*61.1*	*18.0-148*				

L959669-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959669-01 01/02/18 20:26 • (MS) R3277017-4 01/02/18 20:41 • (MSD) R3277017-5 01/02/18 20:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	71.8	ND	47.7	35.3	61.8	44.6	1	50.0-150		J3 J6	29.7	20
(S) o-Terphenyl					*60.2*	*49.0*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



LT Environmental

Billing information: XTO

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Lab # L959664

G103

Table 100

Acctnum: XTOMTX

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks | Sample # (lab only)

Report to: Kyle Littrell	Email To: Kyle_Littrell@xtoenergy.com Abaker@LTenv.com
Project Description: Confirmation Soil Samples	City/State Collected: NM
Phone: 1-970-317-1867 Fax:	Client Project # 30-015-41074	Lab Project #
Collected by (print): Aaron Williamson	Site/Facility ID # JRU-21 SWD-1 (2RP-2267)	P.O. # 012917050
Collected by (signature): Immediately Packed on Ice: N ___ Y ✓	Rush? (Lab MUST Be Notified) ___ Same Day ✓ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX - EPA Method 8021	TPH - EPA Method 8015	Chloride - EPA Method 300.1	Remarks	Sample # (lab only)
SS-1	Grab	SS	1'	12/20/17	10:50	1	✓	✓	✓		-01
SS-2	Grab	SS	6"	12/20/17	10:55	1	✓	✓	✓		02
SS-3	Grab	SS	6"	12/20/17	10:57	1	✓	✓	✓		03
SS-4	Grab	SS	6"	12/20/17	10:59	1	✓	✓	✓		04
SS-5	Grab	SS	1'	12/20/17	11:01	1	✓	✓	✓		05
SS-6	Grab	SS	6"	12/20/17	11:04	1	✓	✓	✓		06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ____ Temp ____

Flow ____ Other ____

Samples returned via: ___ UPS ___ FedEx ___ Courier KW

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	12/20/17	19:23	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	12/21/17	14:30	Southwest Airlines
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (HCL / MeOH / TBR)

Temp: 4.5 °C Bottles Received: 6

Date: 12-22-17 Time: 0945

If preservation required by Login: Date/Time

Hold:

Condition: (NCF) / OK

Received by OCD: 12/11/2020 9:09:15 AM

Jeremy W. Watkins

ESC Lab Sciences
Non-Conformance Form

Login #: L959669	Client: XTORNM	Date: 12/23/17	Evaluated by: Jeremy

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: What TPH?

Client informed by:		Call		Email		Voice Mail		Date: 12/23/17	Time: 1:39pm
TSR Initials: NM	Client Contact:								

Login Instructions:

These are logged correctly.

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

Page 173 of 1119

Analytical Report 616285

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 1 SWD

07-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)

07-MAR-19

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

Reference: XENCO Report No(s): **616285**
JRU DI 1 SWD
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) 616285. 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. 616285 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 616285

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	02-25-19 15:01	4 ft	616285-001
PH01A	S	02-26-19 09:40	16 ft	616285-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1 SWD

Project ID:
Work Order Number(s): *616285*

Report Date: *07-MAR-19*
Date Received: *03/04/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081309 BTEX by EPA 8021B

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

Certificate of Analysis Summary 616285

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 07-MAR-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	616285-001		616285-002					
	Field Id:	PH01		PH01A					
	Depth:	4- ft		16- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Feb-25-19 15:01		Feb-26-19 09:40					
BTEX by EPA 8021B	***Extracted:***	Mar-06-19 08:30		Mar-06-19 08:30					
	Analyzed:	Mar-06-19 21:39		Mar-06-19 21:58					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00202	0.00202				
Toluene		<0.00200	0.00200	<0.00202	0.00202				
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202				
m,p-Xylenes		<0.00400	0.00400	<0.00403	0.00403				
o-Xylene		<0.00200	0.00200	<0.00202	0.00202				
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202				
Total BTEX		<0.00200	0.00200	<0.00202	0.00202				
Inorganic Anions by EPA 300	***Extracted:***	Mar-04-19 16:15		Mar-04-19 16:15					
	Analyzed:	Mar-04-19 23:54		Mar-05-19 10:22					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		2970	99.6	6410	99.2				
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 15:00		Mar-04-19 15:00					
	Analyzed:	Mar-05-19 05:09		Mar-05-19 05:29					
	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	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0				

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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 616285

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616285-001	Date Collected:	02.25.19 15.01	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2970**	99.6	mg/kg	03.04.19 23.54		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 05.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 05.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 05.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 05.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.05.19 05.09	
o-Terphenyl	84-15-1	92	%	70-135	03.05.19 05.09	

Certificate of Analytical Results 616285

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616285-001	Date Collected:	02.25.19 15.01	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.06.19 21.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.19 21.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	122	%	70-130	03.06.19 21.39	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.06.19 21.39	

Certificate of Analytical Results 616285

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616285-002	Date Collected:	02.26.19 09.40	Sample Depth:	16 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6410**	99.2	mg/kg	03.05.19 10.22		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 05.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 05.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 05.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 05.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.05.19 05.29	
o-Terphenyl	84-15-1	93	%	70-135	03.05.19 05.29	

Certificate of Analytical Results 616285

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616285-002	Date Collected:	02.26.19 09.40	Sample Depth:	16 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.06.19 21.58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.06.19 21.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.06.19 21.58	
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.06.19 21.58	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 616285

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Solid Date Prep: 03.04.19
MB Sample Id: 7672922-1-BLK LCS Sample Id: 7672922-1-BKS LCSD Sample Id: 7672922-1-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	253	101	254	102	90-110	0	20	mg/kg	03.04.19 22:43	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Soil Date Prep: 03.04.19
Parent Sample Id: 616199-002 MS Sample Id: 616199-002 S MSD Sample Id: 616199-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.10	248	283	111	302	119	90-110	6	20	mg/kg	03.04.19 23:02	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Soil Date Prep: 03.04.19
Parent Sample Id: 616199-003 MS Sample Id: 616199-003 S MSD Sample Id: 616199-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	56.5	250	310	101	310	101	90-110	0	20	mg/kg	03.05.19 00:33	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3081091 Matrix: Solid Date Prep: 03.04.19
MB Sample Id: 7672927-1-BLK LCS Sample Id: 7672927-1-BKS LCSD Sample Id: 7672927-1-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	955	96	978	98	70-135	2	20	mg/kg	03.04.19 21:43	
Diesel Range Organics (DRO)	8.39	1000	966	97	972	97	70-135	1	20	mg/kg	03.04.19 21:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		120		120		70-135	%	03.04.19 21:43
o-Terphenyl	85		106		114		70-135	%	03.04.19 21:43

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 616285

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081091 — Matrix: Soil — Date Prep: 03.04.19
Parent Sample Id: 616286-021 — MS Sample Id: 616286-021 S — MSD Sample Id: 616286-021 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)	<8.00	1000	962	96	952	95	70-135	1	20	mg/kg	03.04.19 22:44	
Diesel Range Organics (DRO)	<8.13	1000	962	96	970	97	70-135	1	20	mg/kg	03.04.19 22:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		116		70-135	%	03.04.19 22:44
o-Terphenyl	106		103		70-135	%	03.04.19 22:44

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081309 — Matrix: Solid — Date Prep: 03.06.19
MB Sample Id: 7673081-1-BLK — LCS Sample Id: 7673081-1-BKS — LCSD Sample Id: 7673081-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.126	126	0.126	126	70-130	0	35	mg/kg	03.06.19 14:08	
Toluene	<0.000457	0.100	0.102	102	0.102	102	70-130	0	35	mg/kg	03.06.19 14:08	
Ethylbenzene	<0.000566	0.100	0.0941	94	0.0943	94	70-130	0	35	mg/kg	03.06.19 14:08	
m,p-Xylenes	<0.00102	0.200	0.190	95	0.191	96	70-130	1	35	mg/kg	03.06.19 14:08	
o-Xylene	<0.000345	0.100	0.0918	92	0.0922	92	70-130	0	35	mg/kg	03.06.19 14:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		114		114		70-130	%	03.06.19 14:08
4-Bromofluorobenzene	98		100		100		70-130	%	03.06.19 14:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081309 — Matrix: Soil — Date Prep: 03.06.19
Parent Sample Id: 616537-001 — MS Sample Id: 616537-001 S — MSD Sample Id: 616537-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.0675	67	0.0826	83	70-130	20	35	mg/kg	03.06.19 14:46	X
Toluene	<0.000459	0.101	0.0560	55	0.0674	67	70-130	18	35	mg/kg	03.06.19 14:46	X
Ethylbenzene	<0.000569	0.101	0.0512	51	0.0609	61	70-130	17	35	mg/kg	03.06.19 14:46	X
m,p-Xylenes	<0.00102	0.202	0.105	52	0.124	62	70-130	17	35	mg/kg	03.06.19 14:46	X
o-Xylene	<0.000347	0.101	0.0497	49	0.0590	59	70-130	17	35	mg/kg	03.06.19 14:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		116		70-130	%	03.06.19 14:46
4-Bromofluorobenzene	106		104		70-130	%	03.06.19 14:46

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

Page 186 of 1119

Chain of Custody

Work Order No: 6116285

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 Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO - Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM
Phone:	432.704.5178	Email:	rmcafee@ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ rownfields ☐ C ☐ perfund ☐
State of Project:
Reporting:Level II ☐ evel III ☐ ST/UST ☐ RP ☐ vel IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU DI 1 SWD	Turn Around	
Project Number:		Routine	☒
P.O. Number:	2RP-2267	Rush:	
Sampler's Name:	Robert M.	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	3.1/3.0	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	R8	
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)	Sample Comments
PH01	S	02/25/19	1501	4'	1	X	X	X	discrete
PH01A	S	02/26/19	0940	16'	1	X	X	X	discrete

ANALYSIS REQUEST

Work Order Notes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			03/01/19@1480			03/04/19 730
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

TRK#: 7746 0226 2368

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 13 of 15



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: 03/04/2019 07:30:00 AM

Work Order #: 616285

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)?	3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#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: 03/04/2019

Checklist reviewed by: Jessica Kramer Date: 03/04/2019

Jessica Kramer

Analytical Report 616286

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 1 SWD

11-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)

11-MAR-19

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

Reference: XENCO Report No(s): **616286**
JRU DI 1 SWD
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) 616286. 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. 616286 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 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH02	S	02-26-19 10:25	3 ft	616286-001
PH02A	S	02-26-19 10:30	4 ft	616286-002
PH03	S	02-26-19 11:05	1 ft	616286-003
PH03A	S	02-26-19 11:30	5.5 ft	616286-004
PH4	S	02-26-19 13:00	1 ft	616286-005
PH04A	S	02-26-19 13:15	4 ft	616286-006
PH05	S	02-26-19 15:30	1 ft	616286-007
PH05A	S	02-27-19 09:20	6 ft	616286-008
PH06	S	02-27-19 09:40	2 ft	616286-009
PH06A	S	02-27-19 10:35	5 ft	616286-010
PH07	S	02-27-19 10:00	2 ft	616286-011
PH07A	S	02-27-19 10:05	4 ft	616286-012
PH08	S	02-27-19 10:30	1 ft	616286-013
PH08A	S	02-27-19 10:30	4 ft	616286-014
PH09	S	02-27-19 13:10	3 ft	616286-015
PH09A	S	02-27-19 13:30	11 ft	616286-016
PH10	S	02-27-19 13:50	1 ft	616286-017
PH10A	S	02-27-19 13:50	4 ft	616286-018
PH11	S	02-27-19 14:50	1 ft	616286-019
PH11A	S	02-27-19 14:55	5 ft	616286-020
PH12	S	02-28-19 09:30	2 ft	616286-021
PH12A	S	02-28-19 09:30	4 ft	616286-022
PH13	S	02-28-19 10:00	3 ft	616286-023
PH13A	S	02-28-19 10:00	4 ft	616286-024
PH14	S	02-28-19 10:35	2 ft	616286-025
PH14A	S	02-28-19 10:35	4 ft	616286-026
PH15	S	02-28-19 11:15	1 ft	616286-027
PH15A	S	02-28-19 11:15	4 ft	616286-028
PH16	S	02-28-19 13:00	2 ft	616286-029
PH16A	S	02-28-19 13:00	4 ft	616286-030
PH17	S	02-28-19 13:40	3 ft	616286-031
PH17A	S	02-28-19 13:40	4 ft	616286-032
PH18	S	02-28-19 13:20	3 ft	616286-033
PH18A	S	02-28-19 13:20	4 ft	616286-034
PH19	S	02-28-19 14:00	1 ft	616286-035
PH19A	S	02-28-19 14:00	4 ft	616286-036

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: JRU DI 1 SWD

Project ID:
Work Order Number(s): *616286*

Report Date: *11-MAR-19*
Date Received: *03/04/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081227 Inorganic Anions by EPA 300
Lab Sample ID 616286-034 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 616286-033, -034, -035, -036.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3081309 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3081630 BTEX by EPA 8021B
Lab Sample ID 616286-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene 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: 616286-005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022.
The Laboratory Control Sample for Toluene, Benzene, 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.

Batch: LBA-3081753 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: 616286-027,616286-033,616286-028.

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Mon Mar-04-19 07:30 am

Report Date: 11-MAR-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-001		616286-002		616286-003		616286-004		616286-005		616286-006	
	Field Id:	PH02		PH02A		PH03		PH03A		PH4		PH04A	
	Depth:	3- ft		4- ft		1- ft		5.5- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-26-19 10:25		Feb-26-19 10:30		Feb-26-19 11:05		Feb-26-19 11:30		Feb-26-19 13:00		Feb-26-19 13:15	
BTEX by EPA 8021B	***Extracted:***	Mar-06-19 08:30		Mar-06-19 08:30		Mar-06-19 08:30		Mar-06-19 08:30		Mar-08-19 12:00		Mar-08-19 12:00	
	Analyzed:	Mar-06-19 22:17		Mar-06-19 22:36		Mar-06-19 22:55		Mar-06-19 23:14		Mar-08-19 16:32		Mar-08-19 17:47	
	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	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00396	0.00396	<0.00397	0.00397	<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15	
	Analyzed:	Mar-05-19 10:08		Mar-05-19 00:13		Mar-05-19 00:20		Mar-05-19 00:46		Mar-05-19 00:52		Mar-05-19 01:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		41.1	4.99	61.5	50.0	102	5.00	490	50.0	713	50.0	998	50.4
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00	
	Analyzed:	Mar-04-19 12:56		Mar-04-19 13:56		Mar-04-19 14:17		Mar-04-19 14:41		Mar-04-19 15:01		Mar-04-19 15:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 11-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-007		616286-008		616286-009		616286-010		616286-011		616286-012	
	Field Id:	PH05		PH05A		PH06		PH06A		PH07		PH07A	
	Depth:	1- ft		6- ft		2- ft		5- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-26-19 15:30		Feb-27-19 09:20		Feb-27-19 09:40		Feb-27-19 10:35		Feb-27-19 10:00		Feb-27-19 10:05	
BTEX by EPA 8021B	***Extracted:***	Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00	
	Analyzed:	Mar-08-19 18:06		Mar-08-19 18:25		Mar-08-19 18:44		Mar-08-19 19:03		Mar-08-19 19:22		Mar-08-19 19:41	
	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	<0.00201	0.00201
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00403	0.00403	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15		Mar-04-19 16:15	
	Analyzed:	Mar-05-19 01:18		Mar-05-19 01:25		Mar-05-19 01:31		Mar-05-19 01:38		Mar-05-19 01:44		Mar-05-19 01:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		469	49.9	781	49.6	1790	50.0	2560	99.0	185	50.0	519	50.0
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00	
	Analyzed:	Mar-04-19 15:41		Mar-04-19 16:01		Mar-04-19 16:21		Mar-04-19 16:41		Mar-04-19 17:41		Mar-04-19 18:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 11-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-013		616286-014		616286-015		616286-016		616286-017		616286-018	
	Field Id:	PH08		PH08A		PH09		PH09A		PH10		PH10A	
	Depth:	1- ft		4- ft		3- ft		11- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-27-19 10:30		Feb-27-19 10:30		Feb-27-19 13:10		Feb-27-19 13:30		Feb-27-19 13:50		Feb-27-19 13:50	
BTEX by EPA 8021B	***Extracted:***	Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00	
	Analyzed:	Mar-08-19 20:55		Mar-08-19 21:14		Mar-08-19 21:33		Mar-08-19 21:52		Mar-08-19 22:11		Mar-08-19 22:30	
	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	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30	
	Analyzed:	Mar-05-19 11:21		Mar-05-19 11:27		Mar-05-19 11:34		Mar-05-19 11:40		Mar-05-19 11:59		Mar-05-19 12:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		117	24.8	869	49.7	610	50.0	899	49.5	315	49.9	274	49.9
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 10:00	
	Analyzed:	Mar-04-19 18:22		Mar-04-19 18:42		Mar-04-19 19:02		Mar-04-19 19:22		Mar-04-19 19:42		Mar-04-19 20:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		18.6	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		18.6	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 11-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-019		616286-020		616286-021		616286-022		616286-023		616286-024	
	Field Id:	PH11		PH11A		PH12		PH12A		PH13		PH13A	
	Depth:	1- ft		5- ft		2- ft		4- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-27-19 14:50		Feb-27-19 14:55		Feb-28-19 09:30		Feb-28-19 09:30		Feb-28-19 10:00		Feb-28-19 10:00	
BTEX by EPA 8021B	***Extracted:***	Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 12:00		Mar-08-19 14:00		Mar-08-19 14:00	
	Analyzed:	Mar-08-19 22:49		Mar-08-19 23:08		Mar-08-19 23:27		Mar-08-19 23:46		Mar-09-19 02:35		Mar-09-19 02:54	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402	<0.00401	0.00401	<0.00403	0.00403
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30	
	Analyzed:	Mar-05-19 12:12		Mar-05-19 12:19		Mar-05-19 14:16		Mar-05-19 14:22		Mar-05-19 14:29		Mar-05-19 14:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		486	49.9	229	49.9	31.4	5.00	52.2	4.98	7.68	4.97	5.10	5.00
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 10:00		Mar-04-19 10:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00	
	Analyzed:	Mar-04-19 20:22		Mar-04-19 20:42		Mar-04-19 22:24		Mar-04-19 23:24		Mar-04-19 23:45		Mar-05-19 00:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 11-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-025		616286-026		616286-027		616286-028		616286-029		616286-030	
	Field Id:	PH14		PH14A		PH15		PH15A		PH16		PH16A	
	Depth:	2- ft		4- ft		1- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-28-19 10:35		Feb-28-19 10:35		Feb-28-19 11:15		Feb-28-19 11:15		Feb-28-19 13:00		Feb-28-19 13:00	
BTEX by EPA 8021B	***Extracted:***	Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00	
	Analyzed:	Mar-09-19 03:13		Mar-09-19 03:32		Mar-09-19 03:51		Mar-09-19 04:10		Mar-09-19 04:29		Mar-09-19 04:48	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 08:30	
	Analyzed:	Mar-05-19 14:42		Mar-05-19 14:48		Mar-05-19 12:32		Mar-05-19 14:55		Mar-05-19 11:01		Mar-05-19 13:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	29.7	4.99	22.8	4.96	<4.96	4.96	9.07	4.99	76.0	49.5
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00	
	Analyzed:	Mar-05-19 00:25		Mar-05-19 00:45		Mar-05-19 01:05		Mar-05-19 01:26		Mar-05-19 01:46		Mar-05-19 02:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 616286

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1 SWD

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

Date Received in Lab: Mon Mar-04-19 07:30 am
Report Date: 11-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	616286-031		616286-032		616286-033		616286-034		616286-035		616286-036	
	Field Id:	PH17		PH17A		PH18		PH18A		PH19		PH19A	
	Depth:	3- ft		4- ft		3- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-28-19 13:40		Feb-28-19 13:40		Feb-28-19 13:20		Feb-28-19 13:20		Feb-28-19 14:00		Feb-28-19 14:00	
BTEX by EPA 8021B	***Extracted:***	Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00		Mar-08-19 14:00	
	Analyzed:	Mar-09-19 05:07		Mar-09-19 05:26		Mar-09-19 06:40		Mar-09-19 06:59		Mar-09-19 07:18		Mar-09-19 07:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00201	0.00201	0.00364	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	0.00469	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	0.0109	0.00400	<0.00403	0.00403	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	0.00507	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	0.0160	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	0.0243	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-05-19 08:30		Mar-05-19 08:30		Mar-05-19 10:45		Mar-05-19 10:45		Mar-05-19 10:45		Mar-05-19 10:45	
	Analyzed:	Mar-05-19 15:01		Mar-06-19 12:40		Mar-05-19 12:14		Mar-05-19 14:46		Mar-06-19 10:26		Mar-06-19 10:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	9.15	4.95	492	4.99	617	4.95	<4.95	4.95	14.5	4.95
TPH by SW8015 Mod	***Extracted:***	Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00		Mar-04-19 15:00	
	Analyzed:	Mar-05-19 03:07		Mar-05-19 03:27		Mar-05-19 03:47		Mar-05-19 04:08		Mar-05-19 04:28		Mar-05-19 04:48	
	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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-001	Date Collected:	02.26.19 10.25	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.1**	4.99	mg/kg	03.05.19 10.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 12.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 12.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 12.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	03.04.19 12.56	
o-Terphenyl	84-15-1	89	%	70-135	03.04.19 12.56	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-001	Date Collected:	02.26.19 10.25	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.06.19 22.17	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.06.19 22.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.06.19 22.17	
1,4-Difluorobenzene	540-36-3	122	%	70-130	03.06.19 22.17	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-002	Date Collected:	02.26.19 10.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.5**	50.0	mg/kg	03.05.19 00.13		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 13.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 13.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 13.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 13.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.04.19 13.56	
o-Terphenyl	84-15-1	92	%	70-135	03.04.19 13.56	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-002	Date Collected:	02.26.19 10.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.06.19 22.36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.06.19 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.06.19 22.36	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.06.19 22.36	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-003	Date Collected:	02.26.19 11.05	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**102**	5.00	mg/kg	03.05.19 00.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 14.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 14.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 14.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 14.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.04.19 14.17	
o-Terphenyl	84-15-1	92	%	70-135	03.04.19 14.17	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-003	Date Collected:	02.26.19 11.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.06.19 22.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.19 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.06.19 22.55	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.06.19 22.55	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-004	Date Collected:	02.26.19 11.30	Sample Depth:	5.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**490**	50.0	mg/kg	03.05.19 00.46		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 14.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 14.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 14.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 14.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.04.19 14.41	
o-Terphenyl	84-15-1	97	%	70-135	03.04.19 14.41	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-004	Date Collected:	02.26.19 11.30	Sample Depth:	5.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.06.19 08.30	Basis:	Wet Weight
Seq Number:	3081309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.06.19 23.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.06.19 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.06.19 23.14	
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.06.19 23.14	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH4**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-005	Date Collected:	02.26.19 13.00	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**713**	50.0	mg/kg	03.05.19 00.52		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 15.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 15.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 15.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 15.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 15.01	
o-Terphenyl	84-15-1	95	%	70-135	03.04.19 15.01	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH4**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-005	Date Collected:	02.26.19 13.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.08.19 16.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.08.19 16.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.08.19 16.32	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.08.19 16.32	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-006	Date Collected:	02.26.19 13.15	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**998**	50.4	mg/kg	03.05.19 01.12		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 15.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 15.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 15.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 15.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.04.19 15.21	
o-Terphenyl	84-15-1	95	%	70-135	03.04.19 15.21	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-006	Date Collected:	02.26.19 13.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.08.19 17.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.08.19 17.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 17.47	
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.08.19 17.47	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-007	Date Collected:	02.26.19 15.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**469**	49.9	mg/kg	03.05.19 01.18		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 15.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 15.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 15.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 15.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.04.19 15.41	
o-Terphenyl	84-15-1	92	%	70-135	03.04.19 15.41	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-007	Date Collected:	02.26.19 15.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.08.19 18.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.08.19 18.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 18.06	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.08.19 18.06	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-008	Date Collected:	02.27.19 09.20	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**781**	49.6	mg/kg	03.05.19 01.25		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 16.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 16.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 16.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 16.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.04.19 16.01	
o-Terphenyl	84-15-1	90	%	70-135	03.04.19 16.01	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-008	Date Collected:	02.27.19 09.20	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.08.19 18.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.08.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.08.19 18.25	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 18.25	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-009	Date Collected:	02.27.19 09.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1790**	50.0	mg/kg	03.05.19 01.31		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 16.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 16.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 16.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 16.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 16.21	
o-Terphenyl	84-15-1	93	%	70-135	03.04.19 16.21	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-009	Date Collected:	02.27.19 09.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.08.19 18.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 18.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 18.44	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.08.19 18.44	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-010	Date Collected:	02.27.19 10.35	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2560**	99.0	mg/kg	03.05.19 01.38		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 16.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 16.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 16.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 16.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 16.41	
o-Terphenyl	84-15-1	93	%	70-135	03.04.19 16.41	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-010	Date Collected:	02.27.19 10.35	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.08.19 19.03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.08.19 19.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 19.03	
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.08.19 19.03	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-011	Date Collected:	02.27.19 10.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	50.0	mg/kg	03.05.19 01.44		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.04.19 17.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.04.19 17.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.04.19 17.41	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.04.19 17.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.04.19 17.41	
o-Terphenyl	84-15-1	97	%	70-135	03.04.19 17.41	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-011	Date Collected:	02.27.19 10.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.08.19 19.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 19.22	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.08.19 19.22	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-012	Date Collected:	02.27.19 10.05	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.04.19 16.15	Basis:	Wet Weight
Seq Number:	3081120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**519**	50.0	mg/kg	03.05.19 01.51		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 18.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 18.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 18.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 18.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 18.02	
o-Terphenyl	84-15-1	95	%	70-135	03.04.19 18.02	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-012	Date Collected:	02.27.19 10.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.08.19 19.41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.08.19 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 19.41	
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.08.19 19.41	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-013	Date Collected:	02.27.19 10.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**117**	24.8	mg/kg	03.05.19 11.21		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 18.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**18.6**	15.0	mg/kg	03.04.19 18.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 18.22	U	1
Total TPH	PHC635	**18.6**	15.0	mg/kg	03.04.19 18.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.04.19 18.22	
o-Terphenyl	84-15-1	97	%	70-135	03.04.19 18.22	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-013	Date Collected:	02.27.19 10.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.08.19 20.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 20.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.08.19 20.55	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.08.19 20.55	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-014	Date Collected:	02.27.19 10.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**869**	49.7	mg/kg	03.05.19 11.27		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.04.19 18.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.04.19 18.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.04.19 18.42	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.04.19 18.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.04.19 18.42	
o-Terphenyl	84-15-1	92	%	70-135	03.04.19 18.42	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-014	Date Collected:	02.27.19 10.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.08.19 21.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 21.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.08.19 21.14	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.08.19 21.14	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-015	Date Collected:	02.27.19 13.10	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**610**	50.0	mg/kg	03.05.19 11.34		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 19.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 19.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 19.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 19.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.04.19 19.02	
o-Terphenyl	84-15-1	91	%	70-135	03.04.19 19.02	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-015	Date Collected:	02.27.19 13.10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.08.19 21.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.08.19 21.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.08.19 21.33	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 21.33	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-016	Date Collected:	02.27.19 13.30	Sample Depth:	11 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**899**	49.5	mg/kg	03.05.19 11.40		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 19.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 19.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 19.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 19.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 19.22	
o-Terphenyl	84-15-1	94	%	70-135	03.04.19 19.22	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-016	Date Collected:	02.27.19 13.30	Sample Depth:	11 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.08.19 21.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 21.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.08.19 21.52	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 21.52	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-017	Date Collected:	02.27.19 13.50	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**315**	49.9	mg/kg	03.05.19 11.59		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 19.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 19.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 19.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.04.19 19.42	
o-Terphenyl	84-15-1	93	%	70-135	03.04.19 19.42	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-017	Date Collected:	02.27.19 13.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.08.19 22.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.08.19 22.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.08.19 22.11	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 22.11	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-018	Date Collected:	02.27.19 13.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**274**	49.9	mg/kg	03.05.19 12.06		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 20.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 20.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 20.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 20.02	
o-Terphenyl	84-15-1	94	%	70-135	03.04.19 20.02	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-018	Date Collected:	02.27.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.08.19 22.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 22.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.08.19 22.30	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 22.30	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-019	Date Collected:	02.27.19 14.50	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**486**	49.9	mg/kg	03.05.19 12.12		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 20.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 20.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 20.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 20.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.04.19 20.22	
o-Terphenyl	84-15-1	92	%	70-135	03.04.19 20.22	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-019	Date Collected:	02.27.19 14.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.08.19 22.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.08.19 22.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.08.19 22.49	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.08.19 22.49	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-020	Date Collected:	02.27.19 14.55	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	49.9	mg/kg	03.05.19 12.19		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 10.00	Basis:	Wet Weight
Seq Number:	3081090				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 20.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 20.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 20.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 20.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.04.19 20.42	
o-Terphenyl	84-15-1	91	%	70-135	03.04.19 20.42	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-020	Date Collected:	02.27.19 14.55	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.08.19 23.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.08.19 23.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.08.19 23.08	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.08.19 23.08	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-021	Date Collected:	02.28.19 09.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.4**	5.00	mg/kg	03.05.19 14.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 22.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 22.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 22.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 22.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.04.19 22.24	
o-Terphenyl	84-15-1	90	%	70-135	03.04.19 22.24	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-021	Date Collected:	02.28.19 09.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.08.19 23.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.08.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	03.08.19 23.27	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.08.19 23.27	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-022	Date Collected:	02.28.19 09.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.2**	4.98	mg/kg	03.05.19 14.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 23.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 23.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 23.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 23.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.04.19 23.24	
o-Terphenyl	84-15-1	95	%	70-135	03.04.19 23.24	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-022	Date Collected:	02.28.19 09.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 12.00	Basis:	Wet Weight
Seq Number:	3081630				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.08.19 23.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.08.19 23.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.08.19 23.46	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.08.19 23.46	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-023	Date Collected:	02.28.19 10.00	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.68**	4.97	mg/kg	03.05.19 14.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.04.19 23.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.04.19 23.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.04.19 23.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.04.19 23.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.04.19 23.45	
o-Terphenyl	84-15-1	93	%	70-135	03.04.19 23.45	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-023	Date Collected:	02.28.19 10.00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.09.19 02.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.09.19 02.35	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 02.35	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-024	Date Collected:	02.28.19 10.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.10**	5.00	mg/kg	03.05.19 14.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 00.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 00.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 00.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 00.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.05.19 00.05	
o-Terphenyl	84-15-1	92	%	70-135	03.05.19 00.05	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-024	Date Collected:	02.28.19 10.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.09.19 02.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.19 02.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.09.19 02.54	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.19 02.54	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-025	Date Collected:	02.28.19 10.35	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.05.19 14.42	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 00.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 00.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 00.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.05.19 00.25	
o-Terphenyl	84-15-1	94	%	70-135	03.05.19 00.25	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-025	Date Collected:	02.28.19 10.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.09.19 03.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 03.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.19 03.13	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.09.19 03.13	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-026	Date Collected:	02.28.19 10.35	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.7**	4.99	mg/kg	03.05.19 14.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 00.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 00.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 00.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 00.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.05.19 00.45	
o-Terphenyl	84-15-1	94	%	70-135	03.05.19 00.45	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-026	Date Collected:	02.28.19 10.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 03.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 03.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.09.19 03.32	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 03.32	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-027	Date Collected:	02.28.19 11.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.8**	4.96	mg/kg	03.05.19 12.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 01.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 01.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 01.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 01.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.05.19 01.05	
o-Terphenyl	84-15-1	91	%	70-135	03.05.19 01.05	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-027	Date Collected:	02.28.19 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.09.19 03.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 03.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.09.19 03.51	
4-Bromofluorobenzene	460-00-4	138	%	70-130	03.09.19 03.51	**

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id: **PH15A** Matrix: Soil Date Received:03.04.19 07.30

Lab Sample Id: 616286-028 Date Collected: 02.28.19 11.15 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.05.19 08.30 Basis: Wet Weight

Seq Number: 3081224

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	03.05.19 14.55	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 03.04.19 15.00 Basis: Wet Weight

Seq Number: 3081091

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 01.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 01.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 01.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 01.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.05.19 01.26	
o-Terphenyl	84-15-1	89	%	70-135	03.05.19 01.26	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-028	Date Collected:	02.28.19 11.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.19 04.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.19 04.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.09.19 04.10	
4-Bromofluorobenzene	460-00-4	138	%	70-130	03.09.19 04.10	**

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH16**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-029	Date Collected:	02.28.19 13.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.07**	4.99	mg/kg	03.05.19 11.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 01.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 01.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 01.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.05.19 01.46	
o-Terphenyl	84-15-1	91	%	70-135	03.05.19 01.46	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH16**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-029	Date Collected:	02.28.19 13.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 04.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 04.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	03.09.19 04.29	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.09.19 04.29	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH16A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-030	Date Collected:	02.28.19 13.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**76.0**	49.5	mg/kg	03.05.19 13.43		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 02.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 02.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 02.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.05.19 02.06	
o-Terphenyl	84-15-1	91	%	70-135	03.05.19 02.06	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH16A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-030	Date Collected:	02.28.19 13.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 04.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 04.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.09.19 04.48	
4-Bromofluorobenzene	460-00-4	121	%	70-130	03.09.19 04.48	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-031	Date Collected:	02.28.19 13.40	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.05.19 15.01	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 03.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 03.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 03.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 03.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.05.19 03.07	
o-Terphenyl	84-15-1	90	%	70-135	03.05.19 03.07	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-031	Date Collected:	02.28.19 13.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.19 05.07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.19 05.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.09.19 05.07	
4-Bromofluorobenzene	460-00-4	117	%	70-130	03.09.19 05.07	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-032	Date Collected:	02.28.19 13.40	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 08.30	Basis:	Wet Weight
Seq Number:	3081224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.15**	4.95	mg/kg	03.06.19 12.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 03.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 03.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 03.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 03.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.05.19 03.27	
o-Terphenyl	84-15-1	96	%	70-135	03.05.19 03.27	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-032	Date Collected:	02.28.19 13.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.19 05.26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.19 05.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.09.19 05.26	
4-Bromofluorobenzene	460-00-4	116	%	70-130	03.09.19 05.26	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-033	Date Collected:	02.28.19 13.20	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 10.45	Basis:	Wet Weight
Seq Number:	3081227				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**492**	4.99	mg/kg	03.05.19 12.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 03.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 03.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 03.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 03.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.05.19 03.47	
o-Terphenyl	84-15-1	90	%	70-135	03.05.19 03.47	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-033	Date Collected:	02.28.19 13.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 06.40	U	1
Toluene	108-88-3	**0.00364**	0.00200	mg/kg	03.09.19 06.40		1
Ethylbenzene	100-41-4	**0.00469**	0.00200	mg/kg	03.09.19 06.40		1
m,p-Xylenes	179601-23-1	**0.0109**	0.00400	mg/kg	03.09.19 06.40		1
o-Xylene	95-47-6	**0.00507**	0.00200	mg/kg	03.09.19 06.40		1
Total Xylenes	1330-20-7	**0.0160**	0.00200	mg/kg	03.09.19 06.40		1
Total BTEX		**0.0243**	0.00200	mg/kg	03.09.19 06.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.09.19 06.40	
4-Bromofluorobenzene	460-00-4	198	%	70-130	03.09.19 06.40	**

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-034	Date Collected:	02.28.19 13.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 10.45	Basis:	Wet Weight
Seq Number:	3081227				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**617**	4.95	mg/kg	03.05.19 14.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 04.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 04.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 04.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 04.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.05.19 04.08	
o-Terphenyl	84-15-1	93	%	70-135	03.05.19 04.08	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-034	Date Collected:	02.28.19 13.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.09.19 06.59	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.09.19 06.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.09.19 06.59	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.09.19 06.59	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-035	Date Collected:	02.28.19 14.00	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 10.45	Basis:	Wet Weight
Seq Number:	3081227				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.06.19 10.26	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 04.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 04.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 04.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 04.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.05.19 04.28	
o-Terphenyl	84-15-1	91	%	70-135	03.05.19 04.28	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-035	Date Collected:	02.28.19 14.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 07.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 07.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	03.09.19 07.18	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 07.18	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-036	Date Collected:	02.28.19 14.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.05.19 10.45	Basis:	Wet Weight
Seq Number:	3081227				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.5**	4.95	mg/kg	03.06.19 10.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.04.19 15.00	Basis:	Wet Weight
Seq Number:	3081091				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.05.19 04.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.05.19 04.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.05.19 04.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.05.19 04.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.05.19 04.48	
o-Terphenyl	84-15-1	92	%	70-135	03.05.19 04.48	

Certificate of Analytical Results 616286

LT Environmental, Inc., Arvada, CO

JRU DI 1 SWD

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	03.04.19 07.30
Lab Sample Id:	616286-036	Date Collected:	02.28.19 14.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.08.19 14.00	Basis:	Wet Weight
Seq Number:	3081753				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.09.19 07.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 07.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 07.37	
4-Bromofluorobenzene	460-00-4	116	%	70-130	03.09.19 07.37	

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 616286

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Solid Date Prep: 03.04.19
MB Sample Id: 7672922-1-BLK LCS Sample Id: 7672922-1-BKS LCSD Sample Id: 7672922-1-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	253	101	254	102	90-110	0	20	mg/kg	03.04.19 22:43	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081224 Matrix: Solid Date Prep: 03.05.19
MB Sample Id: 7672929-1-BLK LCS Sample Id: 7672929-1-BKS LCSD Sample Id: 7672929-1-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	249	100	259	104	90-110	4	20	mg/kg	03.05.19 10:48	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081227 Matrix: Solid Date Prep: 03.05.19
MB Sample Id: 7672964-1-BLK LCS Sample Id: 7672964-1-BKS LCSD Sample Id: 7672964-1-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	262	105	90-110	1	20	mg/kg	03.05.19 11:52	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Soil Date Prep: 03.04.19
Parent Sample Id: 616199-002 MS Sample Id: 616199-002 S MSD Sample Id: 616199-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.10	248	283	111	302	119	90-110	6	20	mg/kg	03.04.19 23:02	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081120 Matrix: Soil Date Prep: 03.04.19
Parent Sample Id: 616199-003 MS Sample Id: 616199-003 S MSD Sample Id: 616199-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	56.5	250	310	101	310	101	90-110	0	20	mg/kg	03.05.19 00:33	

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 616286

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081224 — Matrix: Soil — Date Prep: 03.05.19
Parent Sample Id: 616286-027 — MS Sample Id: 616286-027 S — MSD Sample Id: 616286-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.8	248	270	100	281	104	90-110	4	20	mg/kg	03.05.19 12:38	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081224 — Matrix: Soil — Date Prep: 03.05.19
Parent Sample Id: 616286-029 — MS Sample Id: 616286-029 S — MSD Sample Id: 616286-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.07	250	258	100	257	99	90-110	0	20	mg/kg	03.05.19 11:08	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081227 — Matrix: Soil — Date Prep: 03.05.19
Parent Sample Id: 616286-033 — MS Sample Id: 616286-033 S — MSD Sample Id: 616286-033 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	492	250	768	110	764	109	90-110	1	20	mg/kg	03.05.19 12:25	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081227 — Matrix: Soil — Date Prep: 03.05.19
Parent Sample Id: 616286-034 — MS Sample Id: 616286-034 S — MSD Sample Id: 616286-034 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	617	248	897	113	879	106	90-110	2	20	mg/kg	03.05.19 14:56	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081090 — Matrix: Solid — Date Prep: 03.04.19
MB Sample Id: 7672926-1-BLK — LCS Sample Id: 7672926-1-BKS — LCSD Sample Id: 7672926-1-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	928	93	951	95	70-135	2	20	mg/kg	03.04.19 12:16	
Diesel Range Organics (DRO)	<8.13	1000	942	94	930	93	70-135	1	20	mg/kg	03.04.19 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	81		124		125		70-135	%	03.04.19 12:16
o-Terphenyl	83		114		119		70-135	%	03.04.19 12:16

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 616286

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081091 — Matrix: Solid — Date Prep: 03.04.19
MB Sample Id: 7672927-1-BLK — LCS Sample Id: 7672927-1-BKS — LCSD Sample Id: 7672927-1-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	955	96	978	98	70-135	2	20	mg/kg	03.04.19 21:43	
Diesel Range Organics (DRO)	8.39	1000	966	97	972	97	70-135	1	20	mg/kg	03.04.19 21:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		120		120		70-135	%	03.04.19 21:43
o-Terphenyl	85		106		114		70-135	%	03.04.19 21:43

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081090 — Matrix: Soil — Date Prep: 03.04.19
Parent Sample Id: 616286-001 — MS Sample Id: 616286-001 S — MSD Sample Id: 616286-001 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	1030	103	1030	103	70-135	0	20	mg/kg	03.04.19 13:16	
Diesel Range Organics (DRO)	14.5	999	1060	105	1080	107	70-135	2	20	mg/kg	03.04.19 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		126		70-135	%	03.04.19 13:16
o-Terphenyl	108		108		70-135	%	03.04.19 13:16

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3081091 — Matrix: Soil — Date Prep: 03.04.19
Parent Sample Id: 616286-021 — MS Sample Id: 616286-021 S — MSD Sample Id: 616286-021 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)	<8.00	1000	962	96	952	95	70-135	1	20	mg/kg	03.04.19 22:44	
Diesel Range Organics (DRO)	<8.13	1000	962	96	970	97	70-135	1	20	mg/kg	03.04.19 22:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		116		70-135	%	03.04.19 22:44
o-Terphenyl	106		103		70-135	%	03.04.19 22:44

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 616286

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081309 — Matrix: Solid — Date Prep: 03.06.19
MB Sample Id: 7673081-1-BLK — LCS Sample Id: 7673081-1-BKS — LCSD Sample Id: 7673081-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.126	126	0.126	126	70-130	0	35	mg/kg	03.06.19 14:08	
Toluene	<0.000457	0.100	0.102	102	0.102	102	70-130	0	35	mg/kg	03.06.19 14:08	
Ethylbenzene	<0.000566	0.100	0.0941	94	0.0943	94	70-130	0	35	mg/kg	03.06.19 14:08	
m,p-Xylenes	<0.00102	0.200	0.190	95	0.191	96	70-130	1	35	mg/kg	03.06.19 14:08	
o-Xylene	<0.000345	0.100	0.0918	92	0.0922	92	70-130	0	35	mg/kg	03.06.19 14:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		114		114		70-130	%	03.06.19 14:08
4-Bromofluorobenzene	98		100		100		70-130	%	03.06.19 14:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081630 — Matrix: Solid — Date Prep: 03.08.19
MB Sample Id: 7673258-1-BLK — LCS Sample Id: 7673258-1-BKS — LCSD Sample Id: 7673258-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.101	101	0.0992	99	70-130	2	35	mg/kg	03.08.19 14:40	
Toluene	<0.000457	0.100	0.0898	90	0.0888	89	70-130	1	35	mg/kg	03.08.19 14:40	
Ethylbenzene	<0.000566	0.100	0.0858	86	0.0850	85	70-130	1	35	mg/kg	03.08.19 14:40	
m,p-Xylenes	<0.00102	0.200	0.171	86	0.171	85	70-130	0	35	mg/kg	03.08.19 14:40	
o-Xylene	<0.000345	0.100	0.0860	86	0.0854	85	70-130	1	35	mg/kg	03.08.19 14:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		106		106		70-130	%	03.08.19 14:40
4-Bromofluorobenzene	102		96		99		70-130	%	03.08.19 14:40

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081753 — Matrix: Solid — Date Prep: 03.08.19
MB Sample Id: 7673343-1-BLK — LCS Sample Id: 7673343-1-BKS — LCSD Sample Id: 7673343-1-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	0.104	103	0.108	109	70-130	4	35	mg/kg	03.09.19 00:42	
Toluene	<0.000458	0.101	0.0932	92	0.0955	96	70-130	2	35	mg/kg	03.09.19 00:42	
Ethylbenzene	<0.000568	0.101	0.0900	89	0.0916	92	70-130	2	35	mg/kg	03.09.19 00:42	
m,p-Xylenes	<0.00102	0.201	0.181	90	0.183	92	70-130	1	35	mg/kg	03.09.19 00:42	
o-Xylene	<0.000346	0.101	0.0894	89	0.0912	92	70-130	2	35	mg/kg	03.09.19 00:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		104		104		70-130	%	03.09.19 00:42
4-Bromofluorobenzene	101		97		98		70-130	%	03.09.19 00:42

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 616286

LT Environmental, Inc.

JRU DI 1 SWD

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081309 — Matrix: Soil — Date Prep: 03.06.19
Parent Sample Id: 616537-001 — MS Sample Id: 616537-001 S — MSD Sample Id: 616537-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.0675	67	0.0826	83	70-130	20	35	mg/kg	03.06.19 14:46	X
Toluene	<0.000459	0.101	0.0560	55	0.0674	67	70-130	18	35	mg/kg	03.06.19 14:46	X
Ethylbenzene	<0.000569	0.101	0.0512	51	0.0609	61	70-130	17	35	mg/kg	03.06.19 14:46	X
m,p-Xylenes	<0.00102	0.202	0.105	52	0.124	62	70-130	17	35	mg/kg	03.06.19 14:46	X
o-Xylene	<0.000347	0.101	0.0497	49	0.0590	59	70-130	17	35	mg/kg	03.06.19 14:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		116		70-130	%	03.06.19 14:46
4-Bromofluorobenzene	106		104		70-130	%	03.06.19 14:46

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081630 — Matrix: Soil — Date Prep: 03.08.19
Parent Sample Id: 616286-005 — MS Sample Id: 616286-005 S — MSD Sample Id: 616286-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000381	0.0990	0.0835	84	0.0639	64	70-130	27	35	mg/kg	03.08.19 15:18	X
Toluene	<0.000451	0.0990	0.0472	48	0.0391	39	70-130	19	35	mg/kg	03.08.19 15:18	X
Ethylbenzene	<0.000559	0.0990	0.0319	32	0.0281	28	70-130	13	35	mg/kg	03.08.19 15:18	X
m,p-Xylenes	<0.00100	0.198	0.0653	33	0.0586	29	70-130	11	35	mg/kg	03.08.19 15:18	X
o-Xylene	<0.000341	0.0990	0.0364	37	0.0318	32	70-130	13	35	mg/kg	03.08.19 15:18	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		111		70-130	%	03.08.19 15:18
4-Bromofluorobenzene	104		106		70-130	%	03.08.19 15:18

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081753 — Matrix: Soil — Date Prep: 03.08.19
Parent Sample Id: 616286-023 — MS Sample Id: 616286-023 S — MSD Sample Id: 616286-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0986	99	0.0876	88	70-130	12	35	mg/kg	03.09.19 01:20	
Toluene	<0.00199	0.0996	0.0879	88	0.0794	80	70-130	10	35	mg/kg	03.09.19 01:20	
Ethylbenzene	<0.000563	0.0996	0.0837	84	0.0759	76	70-130	10	35	mg/kg	03.09.19 01:20	
m,p-Xylenes	<0.00101	0.199	0.168	84	0.154	77	70-130	9	35	mg/kg	03.09.19 01:20	
o-Xylene	<0.000343	0.0996	0.0831	83	0.0766	77	70-130	8	35	mg/kg	03.09.19 01:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	03.09.19 01:20
4-Bromofluorobenzene	103		103		70-130	%	03.09.19 01:20

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

Page 277 of 1119

Chain of Custody

Work Order No: 6162886

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 Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO - Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM
Phone:	432.704.5178	Email:	rmcafee@ltenv.com

Work Order Comments

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

Project Name:	JRU DI 1 SWD	Turn Around	
~~Project Number:~~		Routine	☑
P.O. Number:	2RP-2267	Rush:	
Sampler's Name:	Robert M.	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.1/3.0	Thermometer ID	R8	
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)	Sample Comments
PH02	S	02/26/19	1025	3'	1	X	X	X	discrete
PH02 A			1030	4'		X	X	X	
PH03			1105	1'		X	X	X	
PH03 A			1130	5.5'		X	X	X	
PH04			1300	1'		X	X	X	
PH04 A			1315	4'		X	X	X	
PH05			1530	1'		X	X	X	
PH05 A		02/27/19	0920	6'		X	X	X	
PH06			0940	2'		X	X	X	
PH06 A			1035	5'		X	X	X	

Work Order Notes

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

ANALYSIS REQUEST

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

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

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			03/01/19 @14:45	2		03/04/19 730
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

TRK#: 7746 0226 2368

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 89 of 94

Page 278 of 1119

Chain of Custody

Work Order No: 6116286

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 Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO - Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM
Phone:	432.704.5178	Email:	rmcafee@ Ltenv.com

Work Order Comments

Program: UST/PST ☐ RP ☐ rownfields ☐ C ☐ perfund ☐
State of Project:
Reporting: Level II ☐ evel III ☐ ST/UST ☐ RP ☐ vel IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	JRU DI 1 SWD	Turn Around	
Project Number:		Routine	☑
P.O. Number:	2RP-2267	Rush:	
Sampler's Name:	Robert M.	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.1/3.0	Thermometer ID	R8	
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)	Sample Comments
PH07	S	02/27/19	1005	2'	1	X	X	X	discrete
PH07 A			1005	4'		X	X	X	
PH08			1030	1'		X	X	X	
PH08 A			1030	4'		X	X	X	
PH09			1310	3'		X	X	X	
PH09 A			1330	11'		X	X	X	
PH10			1350	1'		X	X	X	
PH10 A			1350	4'		X	X	X	
PH11			1450	1'		X	X	X	
PH11 A			1455	5'		X	X	X	

Work Order Notes

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

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Robert Mc	Taylor Day	03/01/19 @ 1445	2 Taylor Day	Kelly Pinson	03/04/19 730
3				4		
5				6		

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 90 of 94

Page 279 of 1119

Chain of Custody

Work Order No: 6116286

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 3 of 4

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

Work Order Comments

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

Project Name:		Turn Around	
Project Number:		Routine ☐	
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.1/3.0	Thermometer ID	R8
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

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH17	S	02/28/19	0930	2'	1	X	X	X	discrete
PH12A			0930	4'		X	X	X	
PH13			1000	3'		X	X	X	
PH13A			1000	4'		X	X	X	
PH14			1035	2'		X	X	X	
PH14A			1035	4'		X	X	X	
PH15			1115	1'		X	X	X	
PH15A			1115	4'		X	X	X	
PH16			1300	2'		X	X	X	
PH16A			1300	4'		X	X	X	

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			03/01/19 @ 14:45	2		03/04/19 730
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 91 of 94

Page 280 of 1119

Chain of Custody

Work Order No: 6/162786

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 4 of 4

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

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:	JRU DI 1 SWD	Turn Around	
Project Number:		Routine	☑
P.O. Number:	2RP - 2267	Rush:	
Sampler's Name:	Robert M.	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.4/3.0	Thermometer ID	R8	
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)
PH17	S	02/28/19	1340	3'	1	X	X	X
PH17A			1340	4'		X	X	X
PH18			1320	3'		X	X	X
PH18A			1320	4'		X	X	X
PH19			1400	1'		X	X	X
PH19A			1400	4'		X	X	X

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

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 Robert Muff	Josh Rita	03/01/19 @ 1445	2 Josh Rita	JRAMEL	03/04/19 730
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 92 of 94



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: 03/04/2019 07:30:00 AM

Work Order #: 616286

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)?	3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#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: 03/04/2019

Checklist reviewed by: Jessica Kramer Date: 03/04/2019

Jessica Kramer

Analytical Report 645681

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU -21-SWD-1

012917050

11-DEC-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

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

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

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

11-DEC-19

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

Reference: XENCO Report No(s): **645681**
JRU -21-SWD-1
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645681. 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. 645681 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 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12-09-19 09:43	2 ft	645681-001
BH01A	S	12-09-19 09:56	4 ft	645681-002
BH02	S	12-09-19 10:11	2 ft	645681-003
BH02A	S	12-09-19 10:18	4 ft	645681-004
BH03	S	12-09-19 10:29	2 ft	645681-005
BH03A	S	12-09-19 10:38	4 ft	645681-006
BH04	S	12-09-19 10:49	2 ft	645681-007
BH04A	S	12-09-19 10:59	4 ft	645681-008
BH05	S	12-09-19 11:09	2 ft	645681-009
BH05A	S	12-09-19 11:20	4 ft	645681-010
BH06	S	12-09-19 11:30	2 ft	645681-011
BH06A	S	12-09-19 11:44	4 ft	645681-012
BH07	S	12-09-19 12:48	2 ft	645681-013
BH07A	S	12-09-19 13:06	4 ft	645681-014

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU -21-SWD-1

Project ID: *012917050*
Work Order Number(s): *645681*

Report Date: *11-DEC-19*
Date Received: *12/10/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3110068 BTEX by EPA 8021B

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

Certificate of Analysis Summary 645681

LT Environmental, Inc., Arvada, CO

Project Name: JRU -21-SWD-1

Project Id: 012917050
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645681-001		645681-002		645681-003		645681-004		645681-005		645681-006	
	Field Id:	BH01		BH01A		BH02		BH02A		BH03		BH03A	
	Depth:	2- ft		4- ft		2- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-09-19 09:43		Dec-09-19 09:56		Dec-09-19 10:11		Dec-09-19 10:18		Dec-09-19 10:29		Dec-09-19 10:38	
BTEX by EPA 8021B	*Extracted:*	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 14:14		Dec-10-19 14:32		Dec-10-19 14:49		Dec-10-19 15:06		Dec-10-19 15:24		Dec-10-19 15:41	
	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	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00393	0.00393	<0.00396	0.00396	<0.00400	0.00400	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00197	0.00197	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 12:45		Dec-10-19 13:14		Dec-10-19 13:20		Dec-10-19 13:25		Dec-10-19 13:31		Dec-10-19 13:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<9.98	9.98	75.1	9.88	186	49.9	281	9.92	<9.94	9.94	<9.96	9.96
TPH by SW8015 Mod	*Extracted:*	Dec-10-19 11:00		Dec-10-19 11:00		Dec-10-19 11:00		Dec-10-19 11:00		Dec-10-19 11:00		Dec-10-19 11:00	
	Analyzed:	Dec-10-19 16:21		Dec-10-19 16:41		Dec-10-19 16:41		Dec-10-19 17:02		Dec-10-19 17:02		Dec-10-19 17:22	
	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	<50.2	50.2	<50.1	50.1	<49.8	49.8	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.1	50.1	<49.8	49.8	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.1	50.1	<49.8	49.8	<49.9	49.9
Total GRO-DRO		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.1	50.1	<49.8	49.8	<49.9	49.9
Total TPH		<50.0	50.0	<49.9	49.9	<50.2	50.2	<50.1	50.1	<49.8	49.8	<49.9	49.9

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645681

LT Environmental, Inc., Arvada, CO

Project Name: JRU -21-SWD-1

Project Id: 012917050
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645681-007		645681-008		645681-009		645681-010		645681-011		645681-012	
	Field Id:	BH04		BH04A		BH05		BH05A		BH06		BH06A	
	Depth:	2- ft		4- ft		2- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-09-19 10:49		Dec-09-19 10:59		Dec-09-19 11:09		Dec-09-19 11:20		Dec-09-19 11:30		Dec-09-19 11:44	
BTEX by EPA 8021B	*Extracted:*	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 15:59		Dec-10-19 16:16		Dec-10-19 16:33		Dec-10-19 16:51		Dec-10-19 18:00		Dec-10-19 18:18	
	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	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00397	0.00397	<0.00400	0.00400	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 13:54		Dec-10-19 14:00		Dec-10-19 14:06		Dec-10-19 14:12		Dec-10-19 14:17		Dec-10-19 14:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<10.0	10.0	66.7	10.1	<9.94	9.94	258	49.8	23.9	9.98	<9.88	9.88
TPH by SW8015 Mod	*Extracted:*	Dec-10-19 11:00		Dec-10-19 11:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00	
	Analyzed:	Dec-10-19 17:22		Dec-10-19 17:42		Dec-10-19 18:24		Dec-10-19 19:04		Dec-10-19 19:04		Dec-10-19 19:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<50.1	50.1
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<50.1	50.1
Total GRO-DRO		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<50.1	50.1
Total TPH		<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<50.1	50.1

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645681

LT Environmental, Inc., Arvada, CO

Project Name: JRU -21-SWD-1

Project Id: 012917050
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	645681-013		645681-014					
	Field Id:	BH07		BH07A					
	Depth:	2- ft		4- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Dec-09-19 12:48		Dec-09-19 13:06					
BTEX by EPA 8021B	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00					
	Analyzed:	Dec-10-19 18:35		Dec-10-19 18:52					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00198	0.00198				
Toluene		<0.00200	0.00200	<0.00198	0.00198				
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198				
m,p-Xylenes		<0.00399	0.00399	<0.00396	0.00396				
o-Xylene		<0.00200	0.00200	<0.00198	0.00198				
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198				
Total BTEX		<0.00200	0.00200	<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00					
	Analyzed:	Dec-10-19 14:40		Dec-10-19 14:58					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		943	49.5	593	49.9				
TPH by SW8015 Mod	***Extracted:***	Dec-10-19 16:00		Dec-10-19 16:00					
	Analyzed:	Dec-10-19 19:25		Dec-10-19 19:45					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2				
Diesel Range Organics (DRO)		<50.1	50.1	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2				
Total GRO-DRO		<50.1	50.1	<50.2	50.2				
Total TPH		<50.1	50.1	<50.2	50.2				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-001	Date Collected:	12.09.19 09.43	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.10.19 12.45	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 16.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 16.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 16.21	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 16.21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 16.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.10.19 16.21	
o-Terphenyl	84-15-1	105	%	70-135	12.10.19 16.21	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-001	Date Collected:	12.09.19 09.43	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 14.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 14.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.19 14.14	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.10.19 14.14	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-002	Date Collected:	12.09.19 09.56	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.1**	9.88	mg/kg	12.10.19 13.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 16.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 16.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 16.41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 16.41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 16.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.10.19 16.41	
o-Terphenyl	84-15-1	102	%	70-135	12.10.19 16.41	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-002	Date Collected:	12.09.19 09.56	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1
m,p-Xylenes	179601-23-1	<0.00393	0.00393	mg/kg	12.10.19 14.32	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.10.19 14.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.10.19 14.32	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.10.19 14.32	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-003	Date Collected:	12.09.19 10.11	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**186**	49.9	mg/kg	12.10.19 13.20		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 16.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 16.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 16.41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 16.41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 16.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.10.19 16.41	
o-Terphenyl	84-15-1	111	%	70-135	12.10.19 16.41	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-003	Date Collected:	12.09.19 10.11	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.10.19 14.49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.10.19 14.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.10.19 14.49	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 14.49	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-004	Date Collected:	12.09.19 10.18	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**281**	9.92	mg/kg	12.10.19 13.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.10.19 17.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.10.19 17.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.10.19 17.02	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.10.19 17.02	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.10.19 17.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.10.19 17.02	
o-Terphenyl	84-15-1	106	%	70-135	12.10.19 17.02	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-004	Date Collected:	12.09.19 10.18	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 15.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 15.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.10.19 15.06	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 15.06	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-005	Date Collected:	12.09.19 10.29	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.10.19 13.31	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 17.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 17.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 17.02	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 17.02	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 17.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.10.19 17.02	
o-Terphenyl	84-15-1	109	%	70-135	12.10.19 17.02	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-005	Date Collected:	12.09.19 10.29	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.10.19 15.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.10.19 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.10.19 15.24	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.10.19 15.24	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-006	Date Collected:	12.09.19 10.38	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	12.10.19 13.48	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 17.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.10.19 17.22	
o-Terphenyl	84-15-1	104	%	70-135	12.10.19 17.22	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-006	Date Collected:	12.09.19 10.38	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.10.19 15.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 15.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.10.19 15.41	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 15.41	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-007	Date Collected:	12.09.19 10.49	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.10.19 13.54	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 17.22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 17.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.10.19 17.22	
o-Terphenyl	84-15-1	110	%	70-135	12.10.19 17.22	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-007	Date Collected:	12.09.19 10.49	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.10.19 15.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.10.19 15.59	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.10.19 15.59	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-008	Date Collected:	12.09.19 10.59	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**66.7**	10.1	mg/kg	12.10.19 14.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 11.00	Basis:	Wet Weight
Seq Number:	3110097				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 17.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 17.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 17.42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 17.42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 17.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.10.19 17.42	
o-Terphenyl	84-15-1	106	%	70-135	12.10.19 17.42	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-008	Date Collected:	12.09.19 10.59	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.10.19 16.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.10.19 16.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.10.19 16.16	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.10.19 16.16	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-009	Date Collected:	12.09.19 11.09	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.10.19 14.06	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 18.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 18.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 18.24	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 18.24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 18.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.10.19 18.24	
o-Terphenyl	84-15-1	109	%	70-135	12.10.19 18.24	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-009	Date Collected:	12.09.19 11.09	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.10.19 16.33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.10.19 16.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.10.19 16.33	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.10.19 16.33	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-010	Date Collected:	12.09.19 11.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**258**	49.8	mg/kg	12.10.19 14.12		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.10.19 19.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.10.19 19.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.10.19 19.04	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.10.19 19.04	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.10.19 19.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.10.19 19.04	
o-Terphenyl	84-15-1	102	%	70-135	12.10.19 19.04	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-010	Date Collected:	12.09.19 11.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 16.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 16.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.10.19 16.51	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.19 16.51	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-011	Date Collected:	12.09.19 11.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.9**	9.98	mg/kg	12.10.19 14.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 19.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 19.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 19.04	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 19.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 19.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.10.19 19.04	
o-Terphenyl	84-15-1	108	%	70-135	12.10.19 19.04	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-011	Date Collected:	12.09.19 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.10.19 18.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.10.19 18.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.10.19 18.00	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.10.19 18.00	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-012	Date Collected:	12.09.19 11.44	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.88	9.88	mg/kg	12.10.19 14.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.10.19 19.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.10.19 19.25	
o-Terphenyl	84-15-1	102	%	70-135	12.10.19 19.25	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-012	Date Collected:	12.09.19 11.44	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 18.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 18.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.10.19 18.18	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.10.19 18.18	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-013	Date Collected:	12.09.19 12.48	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**943**	49.5	mg/kg	12.10.19 14.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.10.19 19.25	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.10.19 19.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.10.19 19.25	
o-Terphenyl	84-15-1	108	%	70-135	12.10.19 19.25	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-013	Date Collected:	12.09.19 12.48	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.10.19 18.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.10.19 18.35	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 18.35	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-014	Date Collected:	12.09.19 13.06	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**593**	49.9	mg/kg	12.10.19 14.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 19.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 19.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 19.45	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 19.45	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 19.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.10.19 19.45	
o-Terphenyl	84-15-1	101	%	70-135	12.10.19 19.45	

Certificate of Analytical Results 645681

LT Environmental, Inc., Arvada, CO

JRU -21-SWD-1

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645681-014	Date Collected:	12.09.19 13.06	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.10.19 18.52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.10.19 18.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.10.19 18.52	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.10.19 18.52	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 645681

LT Environmental, Inc.

JRU -21-SWD-1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692123-1-BLK — LCS Sample Id: 7692123-1-BKS — LCSD Sample Id: 7692123-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	263	105	90-110	0	20	mg/kg	12.10.19 11:08	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-001 — MS Sample Id: 645681-001 S — MSD Sample Id: 645681-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.97	198	214	106	217	107	90-110	1	20	mg/kg	12.10.19 12:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-011 — MS Sample Id: 645681-011 S — MSD Sample Id: 645681-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.9	200	238	107	238	108	90-110	0	20	mg/kg	12.10.19 14:23	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110097 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692139-1-BLK — LCS Sample Id: 7692139-1-BKS — LCSD Sample Id: 7692139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1040	104	70-135	1	35	mg/kg	12.10.19 13:37	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1190	119	70-135	6	35	mg/kg	12.10.19 13:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		128		128		70-135	%	12.10.19 13:37
o-Terphenyl	121		120		133		70-135	%	12.10.19 13:37

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 645681

LT Environmental, Inc.

JRU -21-SWD-1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110103 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692141-1-BLK — LCS Sample Id: 7692141-1-BKS — LCSD Sample Id: 7692141-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1060	106	953	95	70-135	11	35	mg/kg	12.10.19 18:03	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	983	98	70-135	14	35	mg/kg	12.10.19 18:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		129		113		70-135	%	12.10.19 18:03
o-Terphenyl	112		125		108		70-135	%	12.10.19 18:03

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110097 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692139-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.10.19 13:17	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110103 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692141-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.10.19 18:03	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110097 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645473-001 — MS Sample Id: 645473-001 S — MSD Sample Id: 645473-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	1130	113	1030	103	70-135	9	35	mg/kg	12.10.19 13:57	
Diesel Range Organics (DRO)	<50.0	999	1220	122	1070	107	70-135	13	35	mg/kg	12.10.19 13:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		123		70-135	%	12.10.19 13:57
o-Terphenyl	134		114		70-135	%	12.10.19 13:57

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 645681

LT Environmental, Inc.

JRU -21-SWD-1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3110103 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-009 — MS Sample Id: 645681-009 S — MSD Sample Id: 645681-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1160	115	1020	102	70-135	13	35	mg/kg	12.10.19 18:44	
Diesel Range Organics (DRO)	<50.3	1010	1240	123	1100	110	70-135	12	35	mg/kg	12.10.19 18:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		123		70-135	%	12.10.19 18:44
o-Terphenyl	133		118		70-135	%	12.10.19 18:44

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3110068 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692119-1-BLK — LCS Sample Id: 7692119-1-BKS — LCSD Sample Id: 7692119-1-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	0.0952	95	0.100	100	70-130	5	35	mg/kg	12.10.19 12:30	
Toluene	<0.00200	0.100	0.0949	95	0.0988	99	70-130	4	35	mg/kg	12.10.19 12:30	
Ethylbenzene	<0.00200	0.100	0.0935	94	0.0966	97	71-129	3	35	mg/kg	12.10.19 12:30	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.200	100	70-135	3	35	mg/kg	12.10.19 12:30	
o-Xylene	<0.00200	0.100	0.0946	95	0.0980	98	71-133	4	35	mg/kg	12.10.19 12:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		101		70-130	%	12.10.19 12:30
4-Bromofluorobenzene	98		97		101		70-130	%	12.10.19 12:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3110068 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-001 — MS Sample Id: 645681-001 S — MSD Sample Id: 645681-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.103	103	0.103	104	70-130	0	35	mg/kg	12.10.19 13:05	
Toluene	<0.00200	0.0998	0.102	102	0.102	103	70-130	0	35	mg/kg	12.10.19 13:05	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0996	101	71-129	1	35	mg/kg	12.10.19 13:05	
m,p-Xylenes	<0.00399	0.200	0.209	105	0.206	104	70-135	1	35	mg/kg	12.10.19 13:05	
o-Xylene	<0.00200	0.0998	0.103	103	0.101	102	71-133	2	35	mg/kg	12.10.19 13:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	12.10.19 13:05
4-Bromofluorobenzene	101		102		70-130	%	12.10.19 13:05

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

Page 322 of 1119

Chain of Custody

Work Order No: 645081

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 2

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-21-SWD-1	Turn Around	
Project Number:	12917050	Routine ☐	
P.O. Number:	Eddy County	Rush: 24hr	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.2	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:	14	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH01	S	12/9/19	9:43	2'	1	X	X	X	Discrete
BH01A			9:56	4'	1	X	X	X	
BH02			10:11	2'	1	X	X	X	
BH02A			10:18	4'	1	X	X	X	
BH03			10:29	2'	1	X	X	X	
BH03A			10:38	4'	1	X	X	X	
BH04			10:49	2'	1	X	X	X	
BH04A			10:59	4'	1	X	X	X	
BH05			11:09	2'	1	X	X	X	
BH05A			11:20	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

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			12/10/1935	2		
3				4		
5				6		

Revised Date 051418 Rev: 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 40 of 42

Page 323 of 1119

Chain of Custody

Work Order No: 645681

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 2 of 2

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-21-SWD-1	Turn Around	
Project Number:	12917050	Routine	☐
P.O. Number:	Eddy County	Rush:	24hr
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	2.2	Temp Blank:	Yes No	Wet Ice: Yes No
Received Intact:	Yes No	Thermometer ID		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH06	S	12/9/19	11:30	2'	1	X	X	X
BH06A	S		11:44	4'	1	X	X	X
BH07	S		12:48	2'	1	X	X	X
BH07A	S		13:06	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day received 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

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
		12/10/19 0935	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 41 of 42

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/10/2019 09:35:00 AM

Work Order #: 645681

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 12/10/2019

Checklist reviewed by: Jessica Kramer Date: 12/11/2019

Jessica Kramer

Analytical Report 645682

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU-21-SWD-1 (11-27-19)

012919298

11-DEC-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

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

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

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

11-DEC-19

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

Reference: XENCO Report No(s): **645682**
JRU-21-SWD-1 (11-27-19)
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645682. 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. 645682 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 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	12-09-19 13:56	0.5 ft	645682-001
SS02	S	12-09-19 14:00	0.5 ft	645682-002
SS03	S	12-09-19 14:01	0.5 ft	645682-003
SS04	S	12-09-19 14:05	0.5 ft	645682-004
SS05	S	12-09-19 14:07	0.5 ft	645682-005
SS06	S	12-09-19 14:09	0.5 ft	645682-006
SS07	S	12-09-19 14:11	0.5 ft	645682-007
SS08	S	12-09-19 14:13	0.5 ft	645682-008
SS09	S	12-09-19 14:15	0.5 ft	645682-009
SS10	S	12-09-19 14:17	0.5 ft	645682-010
SS11	S	12-09-19 14:19	0.5 ft	645682-011
SS12	S	12-09-19 14:21	0.5 ft	645682-012
SS13	S	12-09-19 14:23	0.5 ft	645682-013
SS14	S	12-09-19 14:25	0.5 ft	645682-014

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU-21-SWD-1 (11-27-19)

Project ID: *012919298*
Work Order Number(s): *645682*

Report Date: *11-DEC-19*
Date Received: *12/10/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3110068 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3110074 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3110092 Chloride by EPA 300
Lab Sample ID 645694-002 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: 645682-007, -008, -009, -010, -011, -012, -013, -014.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 645682

LT Environmental, Inc., Arvada, CO

Project Name: JRU-21-SWD-1 (11-27-19)

Project Id: 012919298
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645682-001		645682-002		645682-003		645682-004		645682-005		645682-006	
	Field Id:	SS01		SS02		SS03		SS04		SS05		SS06	
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-09-19 13:56		Dec-09-19 14:00		Dec-09-19 14:01		Dec-09-19 14:05		Dec-09-19 14:07		Dec-09-19 14:09	
BTEX by EPA 8021B	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 19:10		Dec-10-19 19:27		Dec-10-19 19:44		Dec-10-19 20:02		Dec-10-19 20:19		Dec-10-19 20:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
m,p-Xylenes		<0.00399	0.00399	<0.00397	0.00397	<0.00400	0.00400	<0.00398	0.00398	<0.00397	0.00397	<0.00394	0.00394
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00197	0.00197
Chloride by EPA 300	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 15:03		Dec-10-19 15:09		Dec-10-19 15:15		Dec-10-19 15:21		Dec-10-19 15:27		Dec-10-19 15:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		6290	99.6	9230	101	6230	100	4300	99.8	3290	49.8	1710	49.7
TPH by SW8015 Mod	***Extracted:***	Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00	
	Analyzed:	Dec-10-19 19:45		Dec-10-19 20:05		Dec-10-19 20:05		Dec-10-19 20:25		Dec-10-19 20:45		Dec-10-19 20:45	
	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	<50.2	50.2	<50.3	50.3	<50.2	50.2	<50.2	50.2
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2	<50.2	50.2
Total GRO-DRO		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2	<50.2	50.2
Total TPH		<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.3	50.3	<50.2	50.2	<50.2	50.2

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645682

LT Environmental, Inc., Arvada, CO

Project Name: JRU-21-SWD-1 (11-27-19)

Project Id: 012919298
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	645682-007		645682-008		645682-009		645682-010		645682-011		645682-012	
	Field Id:	SS07		SS08		SS09		SS10		SS11		SS12	
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-09-19 14:11		Dec-09-19 14:13		Dec-09-19 14:15		Dec-09-19 14:17		Dec-09-19 14:19		Dec-09-19 14:21	
BTEX by EPA 8021B	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00		Dec-10-19 10:00	
	Analyzed:	Dec-10-19 14:57		Dec-10-19 15:16		Dec-10-19 15:35		Dec-10-19 15:55		Dec-10-19 16:14		Dec-10-19 16:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00403	0.00403	<0.00402	0.00402	<0.00402	0.00402	<0.00401	0.00401	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	Dec-10-19 10:31		Dec-10-19 10:31		Dec-10-19 10:31		Dec-10-19 10:31		Dec-10-19 10:31		Dec-10-19 10:31	
	Analyzed:	Dec-10-19 16:13		Dec-10-19 16:31		Dec-10-19 16:36		Dec-10-19 16:48		Dec-10-19 16:54		Dec-10-19 17:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		305	9.88	858	9.96	369	9.98	660	9.88	610	9.98	623	9.88
TPH by SW8015 Mod	***Extracted:***	Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00		Dec-10-19 16:00	
	Analyzed:	Dec-10-19 21:05		Dec-10-19 21:05		Dec-10-19 21:26		Dec-10-19 21:26		Dec-10-19 21:45		Dec-10-19 21:45	
	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	<49.8	49.8	<49.9	49.9	<50.2	50.2	<49.8	49.8	<49.8	49.8
Diesel Range Organics (DRO)		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.2	50.2	<49.8	49.8	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.2	50.2	<49.8	49.8	<49.8	49.8
Total GRO-DRO		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.2	50.2	<49.8	49.8	<49.8	49.8
Total TPH		<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.2	50.2	<49.8	49.8	<49.8	49.8

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645682

LT Environmental, Inc., Arvada, CO

Project Name: JRU-21-SWD-1 (11-27-19)

Project Id: 012919298
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Tue Dec-10-19 09:35 am
Report Date: 11-DEC-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	645682-013		645682-014					
	Field Id:	SS13		SS14					
	Depth:	0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Dec-09-19 14:23		Dec-09-19 14:25					
BTEX by EPA 8021B	***Extracted:***	Dec-10-19 10:00		Dec-10-19 10:00					
	Analyzed:	Dec-10-19 16:52		Dec-10-19 17:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.000196	0.000196	<0.00200	0.00200				
Toluene		<0.000196	0.000196	<0.00200	0.00200				
Ethylbenzene		<0.000196	0.000196	<0.00200	0.00200				
m,p-Xylenes		<0.000392	0.000392	<0.00400	0.00400				
o-Xylene		<0.000196	0.000196	<0.00200	0.00200				
Total Xylenes		<0.000196	0.000196	<0.00200	0.00200				
Total BTEX		<0.000196	0.000196	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	Dec-10-19 10:31		Dec-10-19 10:31					
	Analyzed:	Dec-10-19 17:17		Dec-10-19 17:23					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		978	9.92	648	10.1				
TPH by SW8015 Mod	***Extracted:***	Dec-10-19 16:00		Dec-10-19 16:00					
	Analyzed:	Dec-10-19 22:06		Dec-10-19 22:06					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9				
Diesel Range Organics (DRO)		<50.1	50.1	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<49.9	49.9				
Total GRO-DRO		<50.1	50.1	<49.9	49.9				
Total TPH		<50.1	50.1	<49.9	49.9				

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS01** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-001 Date Collected: 12.09.19 13.56 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.00 Basis: Wet Weight
Seq Number: 3110077

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6290**	99.6	mg/kg	12.10.19 15.03		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 19.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 19.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 19.45	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 19.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 19.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.10.19 19.45	
o-Terphenyl	84-15-1	106	%	70-135	12.10.19 19.45	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-001	Date Collected:	12.09.19 13.56	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.10.19 19.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.10.19 19.10	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.10.19 19.10	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS02** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-002 Date Collected: 12.09.19 14.00 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.00 Basis: Wet Weight
Seq Number: 3110077

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9230**	101	mg/kg	12.10.19 15.09		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 20.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 20.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 20.05	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 20.05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.10.19 20.05	
o-Terphenyl	84-15-1	99	%	70-135	12.10.19 20.05	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-002	Date Collected:	12.09.19 14.00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.10.19 19.27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.10.19 19.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.19 19.27	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.10.19 19.27	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS03** Matrix: Soil Date Received:12.10.19 09.35
Lab Sample Id: 645682-003 Date Collected: 12.09.19 14.01 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.00 Basis: Wet Weight
Seq Number: 3110077

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6230**	100	mg/kg	12.10.19 15.15		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 20.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 20.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 20.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 20.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.10.19 20.05	
o-Terphenyl	84-15-1	109	%	70-135	12.10.19 20.05	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-003	Date Collected:	12.09.19 14.01	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 19.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.10.19 19.44	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.10.19 19.44	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-004	Date Collected:	12.09.19 14.05	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4300**	99.8	mg/kg	12.10.19 15.21		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.10.19 20.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.10.19 20.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.10.19 20.25	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.10.19 20.25	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.10.19 20.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.10.19 20.25	
o-Terphenyl	84-15-1	104	%	70-135	12.10.19 20.25	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-004	Date Collected:	12.09.19 14.05	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.10.19 20.02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.10.19 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.10.19 20.02	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.19 20.02	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS05** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-005 Date Collected: 12.09.19 14.07 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.00 Basis: Wet Weight
Seq Number: 3110077

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3290**	49.8	mg/kg	12.10.19 15.27		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.10.19 20.45	
o-Terphenyl	84-15-1	104	%	70-135	12.10.19 20.45	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-005	Date Collected:	12.09.19 14.07	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.10.19 20.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.10.19 20.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.10.19 20.19	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.10.19 20.19	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-006	Date Collected:	12.09.19 14.09	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110077				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1710**	49.7	mg/kg	12.10.19 15.32		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 20.45	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.10.19 20.45	
o-Terphenyl	84-15-1	114	%	70-135	12.10.19 20.45	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-006	Date Collected:	12.09.19 14.09	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110068				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.10.19 20.37	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.10.19 20.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.19 20.37	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.10.19 20.37	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-007	Date Collected:	12.09.19 14.11	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.31	Basis:	Wet Weight
Seq Number:	3110092				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**305**	9.88	mg/kg	12.10.19 16.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.10.19 21.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.10.19 21.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.10.19 21.05	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.10.19 21.05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.10.19 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.10.19 21.05	
o-Terphenyl	84-15-1	96	%	70-135	12.10.19 21.05	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-007	Date Collected:	12.09.19 14.11	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.10.19 14.57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.10.19 14.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 14.57	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.10.19 14.57	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-008	Date Collected:	12.09.19 14.13	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.31	Basis:	Wet Weight
Seq Number:	3110092				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**858**	9.96	mg/kg	12.10.19 16.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 21.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 21.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 21.05	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 21.05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.10.19 21.05	
o-Terphenyl	84-15-1	116	%	70-135	12.10.19 21.05	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-008	Date Collected:	12.09.19 14.13	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.10.19 15.16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.10.19 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.10.19 15.16	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.10.19 15.16	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS09** Matrix: Soil Date Received:12.10.19 09.35
Lab Sample Id: 645682-009 Date Collected: 12.09.19 14.15 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.31 Basis: Wet Weight
Seq Number: 3110092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**369**	9.98	mg/kg	12.10.19 16.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 21.26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 21.26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.10.19 21.26	
o-Terphenyl	84-15-1	103	%	70-135	12.10.19 21.26	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-009	Date Collected:	12.09.19 14.15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.10.19 15.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.10.19 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.10.19 15.35	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 15.35	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS10** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-010 Date Collected: 12.09.19 14.17 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.31 Basis: Wet Weight
Seq Number: 3110092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**660**	9.88	mg/kg	12.10.19 16.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.10.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.10.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.10.19 21.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.10.19 21.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.10.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.10.19 21.26	
o-Terphenyl	84-15-1	109	%	70-135	12.10.19 21.26	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-010	Date Collected:	12.09.19 14.17	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.10.19 15.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.10.19 15.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.19 15.55	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.10.19 15.55	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS11** Matrix: Soil Date Received:12.10.19 09.35
Lab Sample Id: 645682-011 Date Collected: 12.09.19 14.19 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.31 Basis: Wet Weight
Seq Number: 3110092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**610**	9.98	mg/kg	12.10.19 16.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 21.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.10.19 21.45	
o-Terphenyl	84-15-1	113	%	70-135	12.10.19 21.45	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-011	Date Collected:	12.09.19 14.19	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.10.19 16.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 16.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.10.19 16.14	
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.10.19 16.14	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS12** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-012 Date Collected: 12.09.19 14.21 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.31 Basis: Wet Weight
Seq Number: 3110092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**623**	9.88	mg/kg	12.10.19 17.12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.10.19 21.45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.10.19 21.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.10.19 21.45	
o-Terphenyl	84-15-1	113	%	70-135	12.10.19 21.45	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-012	Date Collected:	12.09.19 14.21	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 16.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 16.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.10.19 16.33	
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.10.19 16.33	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id: **SS13** Matrix: Soil Date Received: 12.10.19 09.35
Lab Sample Id: 645682-013 Date Collected: 12.09.19 14.23 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.10.19 10.31 Basis: Wet Weight
Seq Number: 3110092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**978**	9.92	mg/kg	12.10.19 17.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 12.10.19 16.00 Basis: Wet Weight
Seq Number: 3110103

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.10.19 22.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.10.19 22.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.10.19 22.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.10.19 22.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.10.19 22.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.10.19 22.06	
o-Terphenyl	84-15-1	105	%	70-135	12.10.19 22.06	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS13**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-013	Date Collected:	12.09.19 14.23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1
Toluene	108-88-3	<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1
Ethylbenzene	100-41-4	<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1
m,p-Xylenes	179601-23-1	<0.000392	0.000392	mg/kg	12.10.19 16.52	U	1
o-Xylene	95-47-6	<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1
Total Xylenes	1330-20-7	<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1
Total BTEX		<0.000196	0.000196	mg/kg	12.10.19 16.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.10.19 16.52	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.10.19 16.52	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-014	Date Collected:	12.09.19 14.25	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.31	Basis:	Wet Weight
Seq Number:	3110092				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**648**	10.1	mg/kg	12.10.19 17.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.10.19 16.00	Basis:	Wet Weight
Seq Number:	3110103				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.10.19 22.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.10.19 22.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.10.19 22.06	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.10.19 22.06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.10.19 22.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.10.19 22.06	
o-Terphenyl	84-15-1	119	%	70-135	12.10.19 22.06	

Certificate of Analytical Results 645682

LT Environmental, Inc., Arvada, CO

JRU-21-SWD-1 (11-27-19)

Sample Id:	**SS14**	Matrix:	Soil	Date Received:	12.10.19 09.35
Lab Sample Id:	645682-014	Date Collected:	12.09.19 14.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.10.19 10.00	Basis:	Wet Weight
Seq Number:	3110074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.10.19 17.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.19 17.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.10.19 17.11	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.10.19 17.11	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 645682

LT Environmental, Inc.

JRU-21-SWD-1 (11-27-19)

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692123-1-BLK — LCS Sample Id: 7692123-1-BKS — LCSD Sample Id: 7692123-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	263	105	263	105	90-110	0	20	mg/kg	12.10.19 11:08	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110092 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692145-1-BLK — LCS Sample Id: 7692145-1-BKS — LCSD Sample Id: 7692145-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	269	108	273	109	90-110	1	20	mg/kg	12.10.19 15:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-001 — MS Sample Id: 645681-001 S — MSD Sample Id: 645681-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.97	198	214	106	217	107	90-110	1	20	mg/kg	12.10.19 12:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110077 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-011 — MS Sample Id: 645681-011 S — MSD Sample Id: 645681-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.9	200	238	107	238	108	90-110	0	20	mg/kg	12.10.19 14:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3110092 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645682-007 — MS Sample Id: 645682-007 S — MSD Sample Id: 645682-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	305	198	312	4	321	8	90-110	3	20	mg/kg	12.10.19 16:19	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 645682

LT Environmental, Inc.

JRU-21-SWD-1 (11-27-19)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3110092 Matrix: Soil Date Prep: 12.10.19
Parent Sample Id: 645694-002 MS Sample Id: 645694-002 S MSD Sample Id: 645694-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	201	199	420	110	423	111	90-110	1	20	mg/kg	12.10.19 17:46	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3110103 Matrix: Solid Date Prep: 12.10.19
MB Sample Id: 7692141-1-BLK LCS Sample Id: 7692141-1-BKS LCSD Sample Id: 7692141-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1060	106	953	95	70-135	11	35	mg/kg	12.10.19 18:03	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	983	98	70-135	14	35	mg/kg	12.10.19 18:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		129		113		70-135	%	12.10.19 18:03
o-Terphenyl	112		125		108		70-135	%	12.10.19 18:03

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3110103 Matrix: Solid Date Prep: 12.10.19
MB Sample Id: 7692141-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.10.19 18:03	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3110103 Matrix: Soil Date Prep: 12.10.19
Parent Sample Id: 645681-009 MS Sample Id: 645681-009 S MSD Sample Id: 645681-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1160	115	1020	102	70-135	13	35	mg/kg	12.10.19 18:44	
Diesel Range Organics (DRO)	<50.3	1010	1240	123	1100	110	70-135	12	35	mg/kg	12.10.19 18:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		123		70-135	%	12.10.19 18:44
o-Terphenyl	133		118		70-135	%	12.10.19 18:44

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 645682

LT Environmental, Inc.

JRU-21-SWD-1 (11-27-19)

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3110068 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692119-1-BLK — LCS Sample Id: 7692119-1-BKS — LCSD Sample Id: 7692119-1-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	0.0952	95	0.100	100	70-130	5	35	mg/kg	12.10.19 12:30	
Toluene	<0.00200	0.100	0.0949	95	0.0988	99	70-130	4	35	mg/kg	12.10.19 12:30	
Ethylbenzene	<0.00200	0.100	0.0935	94	0.0966	97	71-129	3	35	mg/kg	12.10.19 12:30	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.200	100	70-135	3	35	mg/kg	12.10.19 12:30	
o-Xylene	<0.00200	0.100	0.0946	95	0.0980	98	71-133	4	35	mg/kg	12.10.19 12:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		101		70-130	%	12.10.19 12:30
4-Bromofluorobenzene	98		97		101		70-130	%	12.10.19 12:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3110074 — Matrix: Solid — Date Prep: 12.10.19
MB Sample Id: 7692121-1-BLK — LCS Sample Id: 7692121-1-BKS — LCSD Sample Id: 7692121-1-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	0.0964	96	0.0981	98	70-130	2	35	mg/kg	12.10.19 13:15	
Toluene	<0.00200	0.100	0.0965	97	0.100	100	70-130	4	35	mg/kg	12.10.19 13:15	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.100	100	71-129	7	35	mg/kg	12.10.19 13:15	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.212	106	70-135	7	35	mg/kg	12.10.19 13:15	
o-Xylene	<0.00200	0.100	0.0997	100	0.108	108	71-133	8	35	mg/kg	12.10.19 13:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		103		70-130	%	12.10.19 13:15
4-Bromofluorobenzene	109		118		118		70-130	%	12.10.19 13:15

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3110068 — Matrix: Soil — Date Prep: 12.10.19
Parent Sample Id: 645681-001 — MS Sample Id: 645681-001 S — MSD Sample Id: 645681-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.103	103	0.103	104	70-130	0	35	mg/kg	12.10.19 13:05	
Toluene	<0.00200	0.0998	0.102	102	0.102	103	70-130	0	35	mg/kg	12.10.19 13:05	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0996	101	71-129	1	35	mg/kg	12.10.19 13:05	
m,p-Xylenes	<0.00399	0.200	0.209	105	0.206	104	70-135	1	35	mg/kg	12.10.19 13:05	
o-Xylene	<0.00200	0.0998	0.103	103	0.101	102	71-133	2	35	mg/kg	12.10.19 13:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	12.10.19 13:05
4-Bromofluorobenzene	101		102		70-130	%	12.10.19 13:05

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 645682

LT Environmental, Inc.

JRU-21-SWD-1 (11-27-19)

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

Seq Number: 3110074 Matrix: Soil Date Prep: 12.10.19

Parent Sample Id: 645682-007 MS Sample Id: 645682-007 S MSD Sample Id: 645682-007 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	0.0972	97	0.101	100	70-130	4	35	mg/kg	12.10.19 13:53	
Toluene	<0.00200	0.100	0.0972	97	0.101	100	70-130	4	35	mg/kg	12.10.19 13:53	
Ethylbenzene	<0.00200	0.100	0.0957	96	0.0971	96	71-129	1	35	mg/kg	12.10.19 13:53	
m,p-Xylenes	<0.00401	0.200	0.201	101	0.202	100	70-135	0	35	mg/kg	12.10.19 13:53	
o-Xylene	<0.00200	0.100	0.102	102	0.103	102	71-133	1	35	mg/kg	12.10.19 13:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	12.10.19 13:53
4-Bromofluorobenzene	121		119		70-130	%	12.10.19 13:53

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

Page 365 of 1119

Chain of Custody

Work Order No: 645082

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:	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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-21-SWD-1 (11-27-19)	Turn Around	
Project Number:	12917050	Routine	☐
P.O. Number:	Eddy County	Rush:	24hr
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	22.	Thermometer ID	
Received Intact:	(Yes) No	T-NU-009	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	14

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	12/9/19	13:56	.5'	1	X	X	X	Discrete
SS02			14:00		1	X	X	X	
SS03			14:01		1	X	X	X	
SS04			14:05		1	X	X	X	
SS05			14:07		1	X	X	X	
SS06			14:09		1	X	X	X	
SS07			14:11		1	X	X	X	
SS08			14:13		1	X	X	X	
SS09			14:15		1	X	X	X	
SS10			14:17		1	X	X	X	

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

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

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		12/10/19 0935	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 41 of 43

Page 366 of 1119

Chain of Custody

Work Order No: 045082

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 2

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-21-SWD-1 (11-27-19)	Turn Around	
Project Number:	12917050	Routine ☐	
P.O. Number:	Eddy County	Rush: 24hr	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.2	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SS11	S	12/9/19	14:19	.5'	1	X	X	X	Discrete
SS12			14:21		1	X	X	X	
SS13			14:23		1	X	X	X	
SS14			14:25		1	X	X	X	

ANALYSIS REQUEST

Work Order Notes

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12.10.19 0935	2		
			4		
			6		

Revised Date 05.14.18 Rev. 2018.1

Final 1.000

Received by OCD: 12/11/2020 9:09:15 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/10/2019 09:35:00 AM

Work Order #: 645682

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 12/10/2019

Checklist reviewed by: Jessica Kramer Date: 12/10/2019

Jessica Kramer

Analytical Report 648243

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU 12H

012918007

01.09.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

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

01.09.2020

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

Reference: XENCO Report No(s): **648243**
JRU 12H
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) 648243. 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. 648243 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

A Small Business and Minority Company

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

Sample Cross Reference 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH07	S	01.07.2020 11:10	4 ft	648243-001
BH08	S	01.07.2020 11:20	4 ft	648243-002
BH09	S	01.07.2020 11:30	4 ft	648243-003
BH10	S	01.07.2020 11:40	4 ft	648243-004
BH11	S	01.07.2020 12:10	4 ft	648243-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 12H

Project ID: *012918007*
Work Order Number(s): *648243*

Report Date: *01.09.2020*
Date Received: *01.08.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3112686 BTEX by EPA 8021B

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

Certificate of Analysis Summary 648243

LT Environmental, Inc., Arvada, CO

Project Name: JRU 12H

Project Id: 012918007
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 01.08.2020 09:46
Report Date: 01.09.2020 14:27
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	648243-001		648243-002		648243-003		648243-004		648243-005	
	Field Id:	BH07		BH08		BH09		BH10		BH11	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	01.07.2020 11:10		01.07.2020 11:20		01.07.2020 11:30		01.07.2020 11:40		01.07.2020 12:10	
BTEX by EPA 8021B	***Extracted:***	01.08.2020 13:00		01.08.2020 13:00		01.08.2020 13:00		01.08.2020 13:00		01.08.2020 13:00	
	Analyzed:	01.08.2020 18:58		01.08.2020 19:25		01.08.2020 19:42		01.08.2020 19:59		01.08.2020 20:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00404	0.00404	<0.00402	0.00402	<0.00402	0.00402
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	01.08.2020 14:10		01.08.2020 14:10		01.08.2020 14:10		01.08.2020 14:10		01.08.2020 14:10	
	Analyzed:	01.08.2020 19:52		01.08.2020 19:58		01.08.2020 20:04		01.08.2020 20:10		01.08.2020 20:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		17.7	9.88	792	49.8	106	9.98	59.8	10.1	<10.1	10.1
TPH by SW8015 Mod	***Extracted:***	01.08.2020 15:50		01.08.2020 15:50		01.08.2020 15:50		01.08.2020 15:50		01.08.2020 15:50	
	Analyzed:	01.09.2020 04:22		01.09.2020 04:42		01.09.2020 05:01		01.09.2020 05:01		01.09.2020 05:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2
Diesel Range Organics (DRO)		<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2
Total GRO-DRO		<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2
Total TPH		<50.2	50.2	<50.2	50.2	<50.0	50.0	<50.2	50.2	<50.2	50.2

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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-001	Date Collected:	01.07.2020 11:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 14:10	Basis:	Wet Weight
Seq Number:	3112708				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.7**	9.88	mg/kg	01.08.2020 19:52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.08.2020 15:50	Basis:	Wet Weight
Seq Number:	3112724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.09.2020 04:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.09.2020 04:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.09.2020 04:22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.09.2020 04:22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.09.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	01.09.2020 04:22	
o-Terphenyl	84-15-1	127	%	70-135	01.09.2020 04:22	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-001	Date Collected:	01.07.2020 11:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 13:00	Basis:	Wet Weight
Seq Number:	3112686				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.08.2020 18:58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.08.2020 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.08.2020 18:58	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.08.2020 18:58	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-002	Date Collected:	01.07.2020 11:20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 14:10	Basis:	Wet Weight
Seq Number:	3112708				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**792**	49.8	mg/kg	01.08.2020 19:58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.08.2020 15:50	Basis:	Wet Weight
Seq Number:	3112724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.09.2020 04:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.09.2020 04:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.09.2020 04:42	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.09.2020 04:42	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.09.2020 04:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	01.09.2020 04:42	
o-Terphenyl	84-15-1	133	%	70-135	01.09.2020 04:42	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-002	Date Collected:	01.07.2020 11:20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 13:00	Basis:	Wet Weight
Seq Number:	3112686				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.08.2020 19:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.08.2020 19:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.08.2020 19:25	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.08.2020 19:25	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-003	Date Collected:	01.07.2020 11:30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 14:10	Basis:	Wet Weight
Seq Number:	3112708				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**106**	9.98	mg/kg	01.08.2020 20:04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.08.2020 15:50	Basis:	Wet Weight
Seq Number:	3112724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.09.2020 05:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.09.2020 05:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.09.2020 05:01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.09.2020 05:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.09.2020 05:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	01.09.2020 05:01	
o-Terphenyl	84-15-1	134	%	70-135	01.09.2020 05:01	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-003	Date Collected:	01.07.2020 11:30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 13:00	Basis:	Wet Weight
Seq Number:	3112686				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.08.2020 19:42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.08.2020 19:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.08.2020 19:42	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.08.2020 19:42	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH10**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-004	Date Collected:	01.07.2020 11:40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 14:10	Basis:	Wet Weight
Seq Number:	3112708				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**59.8**	10.1	mg/kg	01.08.2020 20:10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.08.2020 15:50	Basis:	Wet Weight
Seq Number:	3112724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.09.2020 05:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.09.2020 05:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.09.2020 05:01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.09.2020 05:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.09.2020 05:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	01.09.2020 05:01	
o-Terphenyl	84-15-1	124	%	70-135	01.09.2020 05:01	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH10**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-004	Date Collected:	01.07.2020 11:40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 13:00	Basis:	Wet Weight
Seq Number:	3112686				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.08.2020 19:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.08.2020 19:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.08.2020 19:59	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.08.2020 19:59	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH11**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-005	Date Collected:	01.07.2020 12:10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 14:10	Basis:	Wet Weight
Seq Number:	3112708				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	01.08.2020 20:16	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.08.2020 15:50	Basis:	Wet Weight
Seq Number:	3112724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.09.2020 05:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.09.2020 05:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.09.2020 05:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.09.2020 05:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.09.2020 05:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	01.09.2020 05:21	
o-Terphenyl	84-15-1	134	%	70-135	01.09.2020 05:21	

Certificate of Analytical Results 648243

LT Environmental, Inc., Arvada, CO

JRU 12H

Sample Id:	**BH11**	Matrix:	Soil	Date Received:	01.08.2020 09:46
Lab Sample Id:	648243-005	Date Collected:	01.07.2020 12:10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.08.2020 13:00	Basis:	Wet Weight
Seq Number:	3112686				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.08.2020 20:17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.08.2020 20:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.08.2020 20:17	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.08.2020 20:17	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 648243

LT Environmental, Inc.

JRU 12H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112708 — Matrix: Solid — Date Prep: 01.08.2020
MB Sample Id: 7693907-1-BLK — LCS Sample Id: 7693907-1-BKS — LCSD Sample Id: 7693907-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	254	102	257	103	90-110	1	20	mg/kg	01.08.2020 17:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112708 — Matrix: Soil — Date Prep: 01.08.2020
Parent Sample Id: 648229-021 — MS Sample Id: 648229-021 S — MSD Sample Id: 648229-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	425	199	633	105	633	104	90-110	0	20	mg/kg	01.08.2020 17:50	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3112708 — Matrix: Soil — Date Prep: 01.08.2020
Parent Sample Id: 648229-031 — MS Sample Id: 648229-031 S — MSD Sample Id: 648229-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	810	1010	1910	109	1880	108	90-110	2	20	mg/kg	01.08.2020 19:15	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3112724 — Matrix: Solid — Date Prep: 01.08.2020
MB Sample Id: 7693951-1-BLK — LCS Sample Id: 7693951-1-BKS — LCSD Sample Id: 7693951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<13.9	1000	1140	114	1200	120	70-135	5	35	mg/kg	01.09.2020 02:23	
Diesel Range Organics (DRO)	<11.5	1000	1100	110	1100	110	70-135	0	35	mg/kg	01.09.2020 02:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		108		129		70-135	%	01.09.2020 02:23
o-Terphenyl	118		100		101		70-135	%	01.09.2020 02:23

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3112724 — Matrix: Solid — Date Prep: 01.08.2020
MB Sample Id: 7693951-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.09.2020 02:23	

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 648243

LT Environmental, Inc.

JRU 12H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3112724 Matrix: Soil Date Prep: 01.08.2020
Parent Sample Id: 648245-002 MS Sample Id: 648245-002 S MSD Sample Id: 648245-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1200	120	1220	122	70-135	2	35	mg/kg	01.09.2020 11:36	
Diesel Range Organics (DRO)	<49.9	998	1110	111	1120	112	70-135	1	35	mg/kg	01.09.2020 11:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		129		70-135	%	01.09.2020 11:36
o-Terphenyl	101		99		70-135	%	01.09.2020 11:36

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3112686 Matrix: Solid Date Prep: 01.08.2020
MB Sample Id: 7693911-1-BLK LCS Sample Id: 7693911-1-BKS LCSD Sample Id: 7693911-1-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	0.0938	94	0.0920	92	70-130	2	35	mg/kg	01.08.2020 12:36	
Toluene	<0.00200	0.100	0.0942	94	0.0921	92	70-130	2	35	mg/kg	01.08.2020 12:36	
Ethylbenzene	<0.00200	0.100	0.0924	92	0.0906	91	71-129	2	35	mg/kg	01.08.2020 12:36	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.187	94	70-135	2	35	mg/kg	01.08.2020 12:36	
o-Xylene	<0.00200	0.100	0.0929	93	0.0910	91	71-133	2	35	mg/kg	01.08.2020 12:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		98		98		70-130	%	01.08.2020 12:36
4-Bromofluorobenzene	104		97		98		70-130	%	01.08.2020 12:36

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3112686 Matrix: Soil Date Prep: 01.08.2020
Parent Sample Id: 648229-021 MS Sample Id: 648229-021 S MSD Sample Id: 648229-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.115	114	0.119	119	70-130	3	35	mg/kg	01.08.2020 13:10	
Toluene	<0.00202	0.101	0.115	114	0.120	120	70-130	4	35	mg/kg	01.08.2020 13:10	
Ethylbenzene	<0.00202	0.101	0.112	111	0.116	116	71-129	4	35	mg/kg	01.08.2020 13:10	
m,p-Xylenes	<0.000761	0.202	0.230	114	0.240	120	70-135	4	35	mg/kg	01.08.2020 13:10	
o-Xylene	<0.00202	0.101	0.112	111	0.117	117	71-133	4	35	mg/kg	01.08.2020 13:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		70-130	%	01.08.2020 13:10
4-Bromofluorobenzene	105		106		70-130	%	01.08.2020 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

Page 386 of 1119

Chain of Custody

Work Order No: 648243

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:	JRU 12H	Turn Around	
Project Number:	01291800?	Routine ☐	
P.O. Number:		Rush: 24hr	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	D.U	Thermometer ID		
Received Intact:	(Yes) No	T-NM-027		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
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 8021)	Chloride (EPA 300.0)
BH07	S	1.7.20	1110	4'	1	X	X	X
BH08	S	1.7.20	1130	4'	1	X	X	X
BH09	S	1.7.20	1130	4'	1	X	X	X
BH10	S	1.7.20	1140	4'	1	X	X	X
BH11	S	1.7.20	1210	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 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
		01/08/20 0811	3		1/8/20 9:46
			4		
			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 19 of 20

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01/08/2020 09:46:00 AM

Work Order #: 648243

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)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 01/08/2020

Checklist reviewed by: Jessica Kramer Date: 01/09/2020

Jessica Kramer

ANALYTICAL REPORT

December 28, 2017

XTO Energy- Delaware Division

Sample Delivery Group:	L958015
Samples Received:	12/15/2017
Project Number:	3001527162
Description:	JRU 12

Report To: Kyle Littrell
6401 N Holiday Hill Rd
Suite 200
Midland, TX 79707

Entire Report Reviewed By:

Nancy McLain
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

PERBC-121317-1055 L958015-01 5

PERBC-121317-1050 L958015-02 6

PERBC-121317-1057 L958015-03 7

PERBC-121317-1059 L958015-04 8

PERBC-121317-1101 L958015-05 9

Qc: Quality Control Summary 10

Total Solids by Method 2540 G-2011 10

Wet Chemistry by Method 300.0 12

Volatile Organic Compounds (GC) by Method 8015/8021 14

Semi-Volatile Organic Compounds (GC) by Method 8015 16

Gl: Glossary of Terms 17

Al: Accreditations & Locations 18

Sc: Sample Chain of Custody 19

PERBC-121317-1055 L958015-01 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:55 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	1	12/18/17 15:11	12/18/17 21:34	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:46	12/19/17 02:11	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	5	12/23/17 08:36	12/26/17 16:07	ACM

PERBC-121317-1050 L958015-02 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:50 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	10	12/18/17 15:11	12/18/17 21:42	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:46	12/19/17 02:34	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	5	12/23/17 08:36	12/26/17 16:24	ACM

PERBC-121317-1057 L958015-03 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:57 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	100	12/18/17 15:11	12/18/17 21:51	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:46	12/19/17 02:57	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 15:15	ACM

PERBC-121317-1059 L958015-04 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:59 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055693	1	12/20/17 13:48	12/20/17 14:00	JD
Wet Chemistry by Method 300.0	WG1055697	5	12/20/17 16:39	12/20/17 21:33	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:46	12/19/17 03:20	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	5	12/23/17 08:36	12/26/17 17:16	ACM

PERBC-121317-1101 L958015-05 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 11:01 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055693	1	12/20/17 13:48	12/20/17 14:00	JD
Wet Chemistry by Method 300.0	WG1055697	10	12/20/17 16:39	12/20/17 21:47	MAJ
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:46	12/19/17 03:43	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 15:32	ACM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Nancy McLain
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	130		10.0	1	12/18/2017 21:34	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00148		0.000500	1	12/19/2017 02:11	WG1055011
Toluene	ND		0.00500	1	12/19/2017 02:11	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 02:11	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 02:11	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 02:11	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*97.8*		*77.0-120*		*12/19/2017 02:11*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*98.2*		*75.0-128*		*12/19/2017 02:11*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		20.0	5	12/26/2017 16:07	WG1055878
C28-C40 Oil Range	37.2		20.0	5	12/26/2017 16:07	WG1055878
(S) o-Terphenyl	*64.9*		*18.0-148*		*12/26/2017 16:07*	WG1055878

Sample Narrative:

L958015-01 WG1055878: Cannot run at lower dilution due to viscosity of extract

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	4590		100	10	12/18/2017 21:42	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000502		0.000500	1	12/19/2017 02:34	WG1055011
Toluene	ND		0.00500	1	12/19/2017 02:34	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 02:34	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 02:34	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 02:34	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*95.0*		*77.0-120*		*12/19/2017 02:34*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*94.8*		*75.0-128*		*12/19/2017 02:34*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	402	J3 V	20.0	5	12/26/2017 16:24	WG1055878
C28-C40 Oil Range	374		20.0	5	12/26/2017 16:24	WG1055878
(S) o-Terphenyl	*69.5*		*18.0-148*		*12/26/2017 16:24*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.9		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	33000		1000	100	12/18/2017 21:51	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00151		0.000500	1	12/19/2017 02:57	WG1055011
Toluene	ND		0.00500	1	12/19/2017 02:57	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 02:57	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 02:57	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 02:57	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*98.4*		*77.0-120*		*12/19/2017 02:57*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*99.4*		*75.0-128*		*12/19/2017 02:57*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.00	1	12/26/2017 15:15	WG1055878
C28-C40 Oil Range	ND		4.00	1	12/26/2017 15:15	WG1055878
(S) o-Terphenyl	*37.6*		*18.0-148*		*12/26/2017 15:15*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.4		1	12/20/2017 14:00	WG1055693

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	2930		50.0	5	12/20/2017 21:33	WG1055697

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00103		0.000500	1	12/19/2017 03:20	WG1055011
Toluene	ND		0.00500	1	12/19/2017 03:20	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 03:20	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 03:20	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 03:20	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*96.0*		*77.0-120*		*12/19/2017 03:20*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*97.4*		*75.0-128*		*12/19/2017 03:20*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	511		20.0	5	12/26/2017 17:16	WG1055878
C28-C40 Oil Range	680		20.0	5	12/26/2017 17:16	WG1055878
(S) o-Terphenyl	*66.0*		*18.0-148*		*12/26/2017 17:16*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.8		1	12/20/2017 14:00	WG1055693

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	6020		100	10	12/20/2017 21:47	WG1055697

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00306		0.000500	1	12/19/2017 03:43	WG1055011
Toluene	ND		0.00500	1	12/19/2017 03:43	WG1055011
Ethylbenzene	0.000700		0.000500	1	12/19/2017 03:43	WG1055011
Total Xylene	0.00182		0.00150	1	12/19/2017 03:43	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 03:43	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*98.3*		*77.0-120*		*12/19/2017 03:43*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*99.1*		*75.0-128*		*12/19/2017 03:43*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	5.42		4.00	1	12/26/2017 15:32	WG1055878
C28-C40 Oil Range	9.83		4.00	1	12/26/2017 15:32	WG1055878
(S) o-Terphenyl	*39.3*		*18.0-148*		*12/26/2017 15:32*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3274726-1 12/20/17 15:17

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L958015-01 Original Sample (OS) • Duplicate (DUP)

(OS) L958015-01 12/20/17 15:17 • (DUP) R3274726-3 12/20/17 15:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.7	87.9	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3274726-2 12/20/17 15:17

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3274720-1 12/20/17 14:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.001			

L958024-05 Original Sample (OS) • Duplicate (DUP)

(OS) L958024-05 12/20/17 14:00 • (DUP) R3274720-3 12/20/17 14:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	78.8	78.4	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3274720-2 12/20/17 14:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3274000-1 12/18/17 16:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		0.795	10.0

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3274000-4 12/18/17 18:43

Analyte	Original Result	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride		57.2	1	7.51		20

L958014-05 Original Sample (OS) • Duplicate (DUP)

(OS) L958014-05 12/18/17 21:17 • (DUP) R3274000-7 12/18/17 21:25

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7510	8630	20	13.9		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274000-2 12/18/17 17:06 • (LCSD) R3274000-8 12/18/17 23:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	200	217	212	108	106	90-110			2.15	20

L958010-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-03 12/18/17 19:43 • (MS) R3274000-5 12/18/17 19:52 • (MSD) R3274000-6 12/18/17 20:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	421	898	886	95.4	93	1	80-120			1.29	20

Method Blank (MB)

(MB) R3274859-4 12/20/17 21:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		0.795	10.0

L958327-01 Original Sample (OS) • Duplicate (DUP)

(OS) L958327-01 12/20/17 22:43 • (DUP) R3274859-5 12/20/17 23:26

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	136	114	1	18		20

L958498-01 Original Sample (OS) • Duplicate (DUP)

(OS) L958498-01 12/21/17 02:44 • (DUP) R3274859-8 12/21/17 02:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	168	142	1	17		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274859-2 12/20/17 18:45 • (LCSD) R3274859-3 12/20/17 18:59

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Chloride	200	213	219	106	110	90-110			3	20

L958327-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958327-03 12/20/17 23:54 • (MS) R3274859-6 12/21/17 00:08 • (MSD) R3274859-7 12/21/17 00:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	49.0	560	583	102	107	1	80-120			4	20

Method Blank (MB)

(MB) R3275037-5 12/18/17 11:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*102*			*75.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275037-1 12/18/17 09:29 • (LCSD) R3275037-2 12/18/17 10:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0511	0.0513	102	103	71.0-121			0.386	20
Toluene	0.0500	0.0522	0.0522	104	104	72.0-120			0.0533	20
Ethylbenzene	0.0500	0.0541	0.0542	108	108	76.0-121			0.0987	20
Total Xylene	0.150	0.159	0.158	106	105	75.0-124			0.819	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*100*	*101*	*75.0-128*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275037-3 12/18/17 10:27 • (LCSD) R3275037-4 12/18/17 10:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	4.69	4.59	85.3	83.4	70.0-136			2.23	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*109*	*109*	*75.0-128*				

L958010-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-05 12/19/17 04:07 • (MS) R3275037-6 12/19/17 04:30 • (MSD) R3275037-7 12/19/17 04:53

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	6.48	22.0	22.3	62.0	63.3	500	10.0-146			1.47	29
Toluene	0.0500	77.0	90.6	92.4	54.6	61.9	500	10.0-143			1.98	30
Ethylbenzene	0.0500	38.0	56.6	58.1	74.5	80.3	500	10.0-147			2.49	31
Total Xylene	0.150	153	223	228	93.3	99.9	500	10.0-149	J5 J6	J5	2.17	30
(S) a,a,a-Trifluorotoluene(FID)					*87.3*	*87.3*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*98.3*	*98.7*		*75.0-128*				

L958010-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-05 12/19/17 04:07 • (MS) R3275037-8 12/19/17 05:16 • (MSD) R3275037-9 12/19/17 05:39

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	3210	4440	4510	44.8	47.2	500	10.0-147			1.46	30
(S) a,a,a-Trifluorotoluene(FID)					*90.6*	*89.7*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*100*	*100*		*75.0-128*				

Method Blank (MB)

(MB) R3275770-3 12/26/17 11:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*92.9*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275770-2 12/26/17 11:01 • (LCSD) R3275770-1 12/26/17 10:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	51.7	44.9	86.1	74.8	50.0-150			14.1	20
(S) o-Terphenyl				*98.2*	*92.7*	*18.0-148*				

L958015-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958015-02 12/26/17 16:24 • (MS) R3275770-4 12/26/17 16:42 • (MSD) R3275770-5 12/26/17 16:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	402	412	574	17.3	287	5	50.0-150	V	J3 V	32.8	20
(S) o-Terphenyl					*71.5*	*69.0*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



XTO ENERGY
Western Division

Quote Number	Page 1 of 1
XTO Contact: Kyle Littrell	XTO Contact Phone #: 1-970-317-1867
Email Results to: Kyle_Littrell@XTOenergy.com; Abaker@LTenv.com	
Well Site/Location: JRU 12	API Number: 3001522762
Collected By: Brandon Cahoon	Samples on Ice (Y/N)
Company: LT Environmental	QA/QC Requested
Signature	Gray Areas for Lab Use Only!

Test Reason: Confirmation Soil Samples

Turnaround:
- ✓ Standard
- ___ Next Day
- ___ Two Day
- ___ Three Day
- ___ Std. 5 Bus. Days (by contract)

Date Needed: ___

Analysis

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	BTEX EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Sample Number
DERRC-121317-1055	SS1	S	12/13/17	10:55	Ice	1	✓	✓	✓	-01
DERRC-121317-1050	SS2	S		10:50			✓	✓	✓	-02
DERRC-121317-1057	SS3	S		10:57			✓	✓	✓	-03
DERRC-121317-1059	SS4	S		10:59			✓	✓	✓	-04
DERRC-121317-1101	SS5	S		11:01			✓	✓	✓	-05

AKE ARW 12/14/17

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Lab Information
B108

Office Abbreviations
Farmington = FAR
Durango = DUR
Bahhen = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV
Permian = PER

L 459015

Relinquished By: (Signature)	Date: 12/14/17	Time: 9:30	Received By: (Signature)	Number of Bottles	Sample Condition
Relinquished By: (Signature)	Date: 12/14/17	Time: 14:30	Received By: (Signature)	Temperature: 21°C	Other Information OK
Relinquished By: (Signature)	Date:	Time:	Received for Lab by: (Signature)	Date: 12/15/17 Time: 0843	

Comments: 4 of 1

* Sample ID will be the office and sampler-date-military time-sampler initials FARJM-MMDDYY-1200

count: 5/102

ESC LAB SCIENCES
Cooler Receipt Form

Client: XTORNM	SDG#	L958015
Cooler Received/Opened On: 12/15/17	Temperature:	
Received by : Troy Dunlap		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Analytical Report 614850

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 1

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): **614850**
JRU DI 1
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) 614850. 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. 614850 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 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH1	S	02-08-19 09:00	1 ft	614850-001
PH1A	S	02-08-19 09:10	5 ft	614850-002
PH2	S	02-08-19 09:30	1 ft	614850-003
PH2A	S	02-08-19 09:35	2 ft	614850-004
PH3	S	02-08-19 10:00	1 ft	614850-005
PH3A	S	02-08-19 10:10	2 ft	614850-006
PH4	S	02-11-19 09:00	1 ft	614850-007
PH4A	S	02-11-19 09:05	2 ft	614850-008
PH5	S	02-11-19 09:40	5 ft	614850-009
PH5A	S	02-11-19 09:55	7 ft	614850-010
PH6	S	02-11-19 10:10	2 ft	614850-011
PH6A	S	02-11-19 10:25	4 ft	614850-012
PH7	S	02-11-19 10:35	1 ft	614850-013
PH7A	S	02-11-19 10:45	3 ft	614850-014
PH8	S	02-11-19 11:05	3 ft	614850-015
PH8A	S	02-11-19 11:25	6 ft	614850-016
PH9	S	02-11-19 12:50	1 ft	614850-017
PH9A	S	02-11-19 13:45	7 ft	614850-018
PH10	S	02-12-19 09:10	1 ft	614850-019
PH10A	S	02-12-19 09:20	2 ft	614850-020
PH11	S	02-12-19 09:30	1 ft	614850-021
PH11A	S	02-12-19 09:40	2 ft	614850-022
PH12	S	02-12-19 09:50	1 ft	614850-023
PH12A	S	02-12-19 10:50	8 ft	614850-024
PH13	S	02-12-19 11:05	1 ft	614850-025
PH13A	S	02-12-19 11:30	4 ft	614850-026
PH14	S	02-12-19 12:40	3 ft	614850-027
PH14A	S	02-12-19 14:40	13 ft	614850-028
PH15	S	02-12-19 14:45	1 ft	614850-029
PH15A	S	02-12-19 14:55	2 ft	614850-030
PH16	S	02-13-19 08:50	1 ft	614850-031
PH16A	S	02-13-19 08:55	2 ft	614850-032
PH17	S	02-13-19 09:30	3 ft	614850-033
PH17A	S	02-13-19 10:00	7 ft	614850-034
PH18	S	02-13-19 10:10	1 ft	614850-035
PH18A	S	02-13-19 10:15	2 ft	614850-036
PH19	S	02-13-19 11:00	1 ft	614850-037
PH19A	S	02-13-19 11:35	4 ft	614850-038
PH20	S	02-13-19 13:20	1 ft	614850-039
PH20A	S	02-13-19 13:30	2 ft	614850-040
PH21	S	02-13-19 14:00	3 ft	614850-041
PH21A	S	02-13-19 14:05	4 ft	614850-042
PH22	S	02-13-19 14:30	2 ft	614850-043

Sample Cross Reference 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

PH22A	S	02-13-19 15:00	6 ft	614850-044

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: JRU DI 1

Project ID:
Work Order Number(s): *614850*

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-3079743 Inorganic Anions by EPA 300
Lab Sample ID 614850-019 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: 614850-009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

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

Batch: LBA-3080174 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3080177 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 614850-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene, 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: 614850-020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 614850-020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 614850-028.

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1

Project ID:
Work Order Number(s): *614850*

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

Batch: LBA-3080181 BTEX by EPA 8021B
Benzene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.
Samples in the analytical batch are: 614850-035, -036, -037, -038, -039, -040, -041, -042, -043, -044

Lab Sample ID 614850-035 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: 614850-035, -036, -037, -038, -039, -040, -041, -042, -043, -044.
The Laboratory Control Sample for Toluene, Benzene, 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 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-001		614850-002		614850-003		614850-004		614850-005		614850-006	
	Field Id:	PH1		PH1A		PH2		PH2A		PH3		PH3A	
	Depth:	1- ft		5- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-08-19 09:00		Feb-08-19 09:10		Feb-08-19 09:30		Feb-08-19 09:35		Feb-08-19 10:00		Feb-08-19 10:10	
BTEX by EPA 8021B	***Extracted:***	Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 12:30		Feb-21-19 12:30	
	Analyzed:	Feb-22-19 08:42		Feb-22-19 09:01		Feb-22-19 09:20		Feb-22-19 09:39		Feb-22-19 09:58		Feb-22-19 10:17	
	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	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00403	0.00403	<0.00401	0.00401	<0.00399	0.00399	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
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 16:53		Feb-19-19 17:33		Feb-20-19 08:30		Feb-19-19 17:45		Feb-19-19 17:52		Feb-20-19 08:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2180	49.9	119	50.0	21.5	4.95	513	24.8	202	49.5	49.9	4.98
TPH by SW8015 Mod	***Extracted:***	Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00	
	Analyzed:	Feb-21-19 13:29		Feb-21-19 14:29		Feb-21-19 14:49		Feb-21-19 15:09		Feb-21-19 15:29		Feb-21-19 15:49	
	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	<15.0	15.0
Diesel Range Organics (DRO)		196	15.0	41.6	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		38.3	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		234	15.0	41.6	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-007		614850-008		614850-009		614850-010		614850-011		614850-012	
	Field Id:	PH4		PH4A		PH5		PH5A		PH6		PH6A	
	Depth:	1- ft		2- ft		5- ft		7- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-11-19 09:00		Feb-11-19 09:05		Feb-11-19 09:40		Feb-11-19 09:55		Feb-11-19 10:10		Feb-11-19 10:25	
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 02:54		Feb-23-19 03:13		Feb-23-19 03:32		Feb-23-19 04:46		Feb-23-19 05:05		Feb-23-19 05:24	
	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	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00399	0.00399	<0.00400	0.00400	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 09:50		Feb-19-19 09:50		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40	
	Analyzed:	Feb-19-19 18:04		Feb-20-19 08:43		Feb-19-19 15:48		Feb-19-19 16:17		Feb-19-19 16:26		Feb-19-19 16:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		460	49.9	191	4.99	3270	49.5	210	49.5	1340	49.5	272	25.0
TPH by SW8015 Mod	***Extracted:***	Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00	
	Analyzed:	Feb-21-19 16:09		Feb-21-19 16:29		Feb-21-19 16:48		Feb-21-19 17:08		Feb-21-19 18:07		Feb-21-19 18:27	
	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	<14.9	14.9	<15.0	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	<14.9	14.9	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-013		614850-014		614850-015		614850-016		614850-017		614850-018	
	Field Id:	PH7		PH7A		PH8		PH8A		PH9		PH9A	
	Depth:	1- ft		3- ft		3- ft		6- ft		1- ft		7- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-11-19 10:35		Feb-11-19 10:45		Feb-11-19 11:05		Feb-11-19 11:25		Feb-11-19 12:50		Feb-11-19 13:45	
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 05:43		Feb-23-19 06:02		Feb-23-19 06:21		Feb-23-19 06:40		Feb-23-19 06:59		Feb-23-19 07:18	
	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	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40	
	Analyzed:	Feb-19-19 16:46		Feb-19-19 17:15		Feb-19-19 17:24		Feb-19-19 17:34		Feb-19-19 17:43		Feb-19-19 17:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		933	24.8	448	49.8	860	24.9	206	24.8	2960	49.9	75.0	24.9
TPH by SW8015 Mod	***Extracted:***	Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00		Feb-21-19 07:00	
	Analyzed:	Feb-21-19 18:46		Feb-21-19 19:06		Feb-21-19 19:25		Feb-21-19 19:45		Feb-21-19 20:04		Feb-21-19 20:24	
	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	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-019		614850-020		614850-021		614850-022		614850-023		614850-024	
	Field Id:	PH10		PH10A		PH11		PH11A		PH12		PH12A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-12-19 09:10		Feb-12-19 09:20		Feb-12-19 09:30		Feb-12-19 09:40		Feb-12-19 09:50		Feb-12-19 10:50	
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 13:30		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00	
	Analyzed:	Feb-23-19 07:37		Feb-23-19 10:26		Feb-23-19 10:45		Feb-23-19 11:04		Feb-23-19 11:23		Feb-23-19 11:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	<0.00403	0.00403	<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40	
	Analyzed:	Feb-19-19 18:03		Feb-19-19 18:32		Feb-19-19 18:41		Feb-19-19 19:10		Feb-19-19 19:20		Feb-19-19 19:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1460	50.0	380	50.3	440	49.9	2460	50.0	115	24.9	113	24.8
TPH by SW8015 Mod	***Extracted:***	Feb-21-19 07:00		Feb-21-19 07:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00	
	Analyzed:	Feb-21-19 20:44		Feb-21-19 21:03		Feb-19-19 13:23		Feb-19-19 14:21		Feb-19-19 14:41		Feb-19-19 15:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	15.8	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	15.8	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-025		614850-026		614850-027		614850-028		614850-029		614850-030	
	Field Id:	PH13		PH13A		PH14		PH14A		PH15		PH15A	
	Depth:	1- ft		4- ft		3- ft		13- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-12-19 11:05		Feb-12-19 11:30		Feb-12-19 12:40		Feb-12-19 14:40		Feb-12-19 14:45		Feb-12-19 14:55	
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00	
	Analyzed:	Feb-23-19 12:01		Feb-23-19 12:20		Feb-23-19 12:39		Feb-23-19 12:58		Feb-23-19 13:17		Feb-23-19 14:31	
	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	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 12:40		Feb-19-19 13:15		Feb-19-19 13:15	
	Analyzed:	Feb-19-19 19:39		Feb-19-19 19:49		Feb-19-19 19:58		Feb-19-19 20:08		Feb-19-19 19:09		Feb-19-19 18:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		994	24.9	89.3	49.9	2320	25.0	69.6	25.0	43.2	24.8	86.1	5.00
TPH by SW8015 Mod	***Extracted:***	Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00	
	Analyzed:	Feb-19-19 15:20		Feb-19-19 15:40		Feb-19-19 15:59		Feb-19-19 16:19		Feb-19-19 16:38		Feb-19-19 16:58	
	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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-031		614850-032		614850-033		614850-034		614850-035		614850-036	
	Field Id:	PH16		PH16A		PH17		PH17A		PH18		PH18A	
	Depth:	1- ft		2- ft		3- ft		7- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-13-19 08:50		Feb-13-19 08:55		Feb-13-19 09:30		Feb-13-19 10:00		Feb-13-19 10:10		Feb-13-19 10:15	
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 16:00		Feb-22-19 17:00		Feb-22-19 17:00	
	Analyzed:	Feb-23-19 14:50		Feb-23-19 15:09		Feb-23-19 15:28		Feb-23-19 15:47		Feb-23-19 20:10		Feb-23-19 20:29	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15	
	Analyzed:	Feb-19-19 19:15		Feb-19-19 19:21		Feb-19-19 19:27		Feb-19-19 19:49		Feb-19-19 19:55		Feb-20-19 15:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		76.0	24.8	167	4.98	1210	49.9	65.1	25.0	196	5.00	148	4.96
TPH by SW8015 Mod	***Extracted:***	Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-19-19 11:00		Feb-20-19 13:00		Feb-20-19 13:00	
	Analyzed:	Feb-19-19 17:56		Feb-19-19 18:16		Feb-19-19 18:35		Feb-19-19 18:55		Feb-20-19 18:57		Feb-20-19 19:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-037		614850-038		614850-039		614850-040		614850-041		614850-042	
	Field Id:	PH19		PH19A		PH20		PH20A		PH21		PH21A	
	Depth:	1- ft		4- ft		1- ft		2- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-13-19 11:00		Feb-13-19 11:35		Feb-13-19 13:20		Feb-13-19 13:30		Feb-13-19 14:00		Feb-13-19 14:05	
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 17:00		Feb-22-19 17:00		Feb-22-19 17:00		Feb-22-19 17:00		Feb-22-19 17:00		Feb-22-19 17:00	
	Analyzed:	Feb-23-19 20:48		Feb-23-19 21:07		Feb-23-19 21:26		Feb-23-19 21:45		Feb-23-19 22:04		Feb-23-19 22:23	
	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	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15		Feb-19-19 13:15	
	Analyzed:	Feb-20-19 08:49		Feb-19-19 20:20		Feb-19-19 20:14		Feb-19-19 20:38		Feb-19-19 20:45		Feb-19-19 21:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1200	4.97	200	4.98	61.4	24.9	241	24.9	1130	5.00	230	5.01
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-18-19 15:00		Feb-18-19 15:00	
	Analyzed:	Feb-20-19 20:16		Feb-20-19 20:36		Feb-20-19 20:56		Feb-20-19 21:16		Feb-19-19 04:11		Feb-19-19 04:30	
	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)		33.4	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		33.4	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 614850

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

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:	614850-043		614850-044					
	Field Id:	PH22		PH22A					
	Depth:	2- ft		6- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Feb-13-19 14:30		Feb-13-19 15:00					
BTEX by EPA 8021B	***Extracted:***	Feb-22-19 17:00		Feb-22-19 17:00					
	Analyzed:	Feb-23-19 22:42		Feb-23-19 23:01					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00199	0.00199				
Toluene		<0.00201	0.00201	<0.00199	0.00199				
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199				
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398				
o-Xylene		<0.00201	0.00201	<0.00199	0.00199				
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199				
Total BTEX		<0.00201	0.00201	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Feb-19-19 13:15		Feb-19-19 13:15					
	Analyzed:	Feb-19-19 21:12		Feb-20-19 08:55					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		502	24.8	62.4	4.98				
TPH by SW8015 Mod	***Extracted:***	Feb-18-19 15:00		Feb-18-19 15:00					
	Analyzed:	Feb-19-19 04:51		Feb-19-19 05:11					
	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	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0				

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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH1**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-001	Date Collected:	02.08.19 09.00	Sample Depth:	1 ft

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	**2180**	49.9	mg/kg	02.19.19 16.53		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.21.19 07.00	Basis:	Wet Weight
Seq Number:	3080092				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 13.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**196**	15.0	mg/kg	02.21.19 13.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**38.3**	15.0	mg/kg	02.21.19 13.29		1
Total TPH	PHC635	**234**	15.0	mg/kg	02.21.19 13.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 13.29	
o-Terphenyl	84-15-1	99	%	70-135	02.21.19 13.29	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH1**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-001	Date Collected:	02.08.19 09.00	Sample Depth:	1 ft
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	<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.22.19 08.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 08.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 08.42	
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.22.19 08.42	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH1A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-002 Date Collected: 02.08.19 09.10 Sample Depth: 5 ft

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	**119**	50.0	mg/kg	02.19.19 17.33		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 14.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**41.6**	15.0	mg/kg	02.21.19 14.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 14.29	U	1
Total TPH	PHC635	**41.6**	15.0	mg/kg	02.21.19 14.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 14.29	
o-Terphenyl	84-15-1	95	%	70-135	02.21.19 14.29	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH1A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-002	Date Collected:	02.08.19 09.10	Sample Depth:	5 ft
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 09.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.22.19 09.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.22.19 09.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.22.19 09.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.22.19 09.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.22.19 09.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.22.19 09.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.22.19 09.01	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 09.01	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH2** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-003 Date Collected: 02.08.19 09.30 Sample Depth: 1 ft

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	**21.5**	4.95	mg/kg	02.20.19 08.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.21.19 14.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.21.19 14.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.21.19 14.49	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.21.19 14.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.21.19 14.49	
o-Terphenyl	84-15-1	90	%	70-135	02.21.19 14.49	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH2**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-003	Date Collected:	02.08.19 09.30	Sample Depth:	1 ft
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	<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.22.19 09.20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.22.19 09.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.22.19 09.20	
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.22.19 09.20	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH2A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-004 Date Collected: 02.08.19 09.35 Sample Depth: 2 ft

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	**513**	24.8	mg/kg	02.19.19 17.45		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 15.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 15.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 15.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 15.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.21.19 15.09	
o-Terphenyl	84-15-1	90	%	70-135	02.21.19 15.09	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH2A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-004	Date Collected:	02.08.19 09.35	Sample Depth:	2 ft
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	<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.22.19 09.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 09.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 09.39	
4-Bromofluorobenzene	460-00-4	109	%	70-130	02.22.19 09.39	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH3** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-005 Date Collected: 02.08.19 10.00 Sample Depth: 1 ft

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**	49.5	mg/kg	02.19.19 17.52		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 15.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 15.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 15.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 15.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 15.29	
o-Terphenyl	84-15-1	92	%	70-135	02.21.19 15.29	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH3**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-005	Date Collected:	02.08.19 10.00	Sample Depth:	1 ft
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	<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.22.19 09.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 09.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.22.19 09.58	
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.22.19 09.58	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH3A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-006 Date Collected: 02.08.19 10.10 Sample Depth: 2 ft

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	**49.9**	4.98	mg/kg	02.20.19 08.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 15.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 15.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 15.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 15.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.21.19 15.49	
o-Terphenyl	84-15-1	91	%	70-135	02.21.19 15.49	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH3A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-006	Date Collected:	02.08.19 10.10	Sample Depth:	2 ft
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	<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.22.19 10.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.22.19 10.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.22.19 10.17	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.22.19 10.17	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH4**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-007	Date Collected:	02.11.19 09.00	Sample Depth:	1 ft

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	**460**	49.9	mg/kg	02.19.19 18.04		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.21.19 07.00	Basis:	Wet Weight
Seq Number:	3080092				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 16.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 16.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 16.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 16.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.21.19 16.09	
o-Terphenyl	84-15-1	92	%	70-135	02.21.19 16.09	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH4**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-007	Date Collected:	02.11.19 09.00	Sample Depth:	1 ft
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	<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 02.54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 02.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.23.19 02.54	
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.23.19 02.54	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH4A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-008 Date Collected: 02.11.19 09.05 Sample Depth: 2 ft

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	**191**	4.99	mg/kg	02.20.19 08.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 16.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 16.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 16.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 16.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.21.19 16.29	
o-Terphenyl	84-15-1	92	%	70-135	02.21.19 16.29	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH4A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-008	Date Collected:	02.11.19 09.05	Sample Depth:	2 ft
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 03.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 03.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 03.13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.23.19 03.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 03.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 03.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 03.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.23.19 03.13	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 03.13	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH5** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-009 Date Collected: 02.11.19 09.40 Sample Depth: 5 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3270**	49.5	mg/kg	02.19.19 15.48		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 16.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 16.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 16.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.21.19 16.48	
o-Terphenyl	84-15-1	91	%	70-135	02.21.19 16.48	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH5**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-009	Date Collected:	02.11.19 09.40	Sample Depth:	5 ft
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 03.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 03.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 03.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 03.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 03.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 03.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 03.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	02.23.19 03.32	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 03.32	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH5A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-010 Date Collected: 02.11.19 09.55 Sample Depth: 7 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**210**	49.5	mg/kg	02.19.19 16.17		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.21.19 17.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.21.19 17.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.21.19 17.08	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.21.19 17.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 17.08	
o-Terphenyl	84-15-1	94	%	70-135	02.21.19 17.08	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH5A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-010	Date Collected:	02.11.19 09.55	Sample Depth:	7 ft
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 04.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 04.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 04.46	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 04.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 04.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 04.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 04.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 04.46	
4-Bromofluorobenzene	460-00-4	104	%	70-130	02.23.19 04.46	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH6** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-011 Date Collected: 02.11.19 10.10 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	49.5	mg/kg	02.19.19 16.26		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.21.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.21.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.21.19 18.07	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.21.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.21.19 18.07	
o-Terphenyl	84-15-1	96	%	70-135	02.21.19 18.07	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH6**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-011	Date Collected:	02.11.19 10.10	Sample Depth:	2 ft
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 05.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 05.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 05.05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 05.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 05.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 05.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 05.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.23.19 05.05	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 05.05	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH6A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-012 Date Collected: 02.11.19 10.25 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**272**	25.0	mg/kg	02.19.19 16.36		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 18.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.21.19 18.27	
o-Terphenyl	84-15-1	105	%	70-135	02.21.19 18.27	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH6A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-012	Date Collected:	02.11.19 10.25	Sample Depth:	4 ft
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 05.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.23.19 05.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.23.19 05.24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.23.19 05.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.23.19 05.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.23.19 05.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.23.19 05.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.23.19 05.24	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 05.24	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH7** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-013 Date Collected: 02.11.19 10.35 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**933**	24.8	mg/kg	02.19.19 16.46		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 18.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 18.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 18.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 18.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.21.19 18.46	
o-Terphenyl	84-15-1	95	%	70-135	02.21.19 18.46	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH7**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-013	Date Collected:	02.11.19 10.35	Sample Depth:	1 ft
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 05.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 05.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 05.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 05.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 05.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 05.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 05.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.23.19 05.43	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 05.43	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH7A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-014 Date Collected: 02.11.19 10.45 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**448**	49.8	mg/kg	02.19.19 17.15		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 19.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 19.06	
o-Terphenyl	84-15-1	92	%	70-135	02.21.19 19.06	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH7A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-014	Date Collected:	02.11.19 10.45	Sample Depth:	3 ft
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	<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 06.02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 06.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.23.19 06.02	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 06.02	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH8** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-015 Date Collected: 02.11.19 11.05 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**860**	24.9	mg/kg	02.19.19 17.24		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 19.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 19.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 19.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 19.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.21.19 19.25	
o-Terphenyl	84-15-1	94	%	70-135	02.21.19 19.25	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH8**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-015	Date Collected:	02.11.19 11.05	Sample Depth:	3 ft
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 06.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 06.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 06.21	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 06.21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 06.21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 06.21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 06.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.23.19 06.21	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.23.19 06.21	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH8A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-016 Date Collected: 02.11.19 11.25 Sample Depth: 6 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**206**	24.8	mg/kg	02.19.19 17.34		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 19.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 19.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 19.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 19.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.21.19 19.45	
o-Terphenyl	84-15-1	91	%	70-135	02.21.19 19.45	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH8A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-016	Date Collected:	02.11.19 11.25	Sample Depth:	6 ft
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 06.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 06.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 06.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.23.19 06.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 06.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 06.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 06.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 06.40	
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.23.19 06.40	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH9** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-017 Date Collected: 02.11.19 12.50 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2960**	49.9	mg/kg	02.19.19 17.43		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.21.19 20.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.21.19 20.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.21.19 20.04	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.21.19 20.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.21.19 20.04	
o-Terphenyl	84-15-1	91	%	70-135	02.21.19 20.04	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH9**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-017	Date Collected:	02.11.19 12.50	Sample Depth:	1 ft
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	<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 06.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 06.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 06.59	
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 06.59	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH9A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-018 Date Collected: 02.11.19 13.45 Sample Depth: 7 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**75.0**	24.9	mg/kg	02.19.19 17.53		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 20.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 20.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 20.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 20.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.21.19 20.24	
o-Terphenyl	84-15-1	92	%	70-135	02.21.19 20.24	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH9A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-018	Date Collected:	02.11.19 13.45	Sample Depth:	7 ft
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 07.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 07.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 07.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 07.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 07.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 07.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 07.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.23.19 07.18	
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.23.19 07.18	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH10** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-019 Date Collected: 02.12.19 09.10 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1460**	50.0	mg/kg	02.19.19 18.03		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 20.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 20.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 20.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 20.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.21.19 20.44	
o-Terphenyl	84-15-1	94	%	70-135	02.21.19 20.44	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-019	Date Collected:	02.12.19 09.10	Sample Depth:	1 ft
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 07.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 07.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 07.37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 07.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 07.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 07.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 07.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 07.37	
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.23.19 07.37	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH10A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-020 Date Collected: 02.12.19 09.20 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**380**	50.3	mg/kg	02.19.19 18.32		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.21.19 07.00 Basis: Wet Weight

Seq Number: 3080092

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.21.19 21.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.21.19 21.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.21.19 21.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.21.19 21.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	02.21.19 21.03	
o-Terphenyl	84-15-1	90	%	70-135	02.21.19 21.03	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-020	Date Collected:	02.12.19 09.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 10.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 10.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.23.19 10.26	
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.23.19 10.26	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH11** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-021 Date Collected: 02.12.19 09.30 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**440**	49.9	mg/kg	02.19.19 18.41		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 13.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 13.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 13.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	02.19.19 13.23	
o-Terphenyl	84-15-1	104	%	70-135	02.19.19 13.23	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-021	Date Collected:	02.12.19 09.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.23.19 10.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.23.19 10.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.23.19 10.45	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 10.45	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH11A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-022 Date Collected: 02.12.19 09.40 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2460**	50.0	mg/kg	02.19.19 19.10		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.19.19 14.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.19.19 14.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.19.19 14.21	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.19.19 14.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 14.21	
o-Terphenyl	84-15-1	90	%	70-135	02.19.19 14.21	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-022	Date Collected:	02.12.19 09.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 11.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 11.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 11.04	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 11.04	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH12** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-023 Date Collected: 02.12.19 09.50 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**115**	24.9	mg/kg	02.19.19 19.20		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 14.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.8**	15.0	mg/kg	02.19.19 14.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 14.41	U	1
Total TPH	PHC635	**15.8**	15.0	mg/kg	02.19.19 14.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 14.41	
o-Terphenyl	84-15-1	90	%	70-135	02.19.19 14.41	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-023	Date Collected:	02.12.19 09.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 11.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 11.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 11.23	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 11.23	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH12A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-024 Date Collected: 02.12.19 10.50 Sample Depth: 8 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	24.8	mg/kg	02.19.19 19.30		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 15.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 15.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 15.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 15.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	02.19.19 15.01	
o-Terphenyl	84-15-1	86	%	70-135	02.19.19 15.01	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-024	Date Collected:	02.12.19 10.50	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 11.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 11.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.23.19 11.42	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 11.42	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH13** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-025 Date Collected: 02.12.19 11.05 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**994**	24.9	mg/kg	02.19.19 19.39		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 15.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 15.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 15.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 15.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	02.19.19 15.20	
o-Terphenyl	84-15-1	107	%	70-135	02.19.19 15.20	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-025	Date Collected:	02.12.19 11.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.23.19 12.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 12.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 12.01	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.23.19 12.01	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH13A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-026 Date Collected: 02.12.19 11.30 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.3**	49.9	mg/kg	02.19.19 19.49		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 15.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 15.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 15.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 15.40	
o-Terphenyl	84-15-1	87	%	70-135	02.19.19 15.40	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-026	Date Collected:	02.12.19 11.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 12.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 12.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 12.20	
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 12.20	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH14** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-027 Date Collected: 02.12.19 12.40 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2320**	25.0	mg/kg	02.19.19 19.58		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 15.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 15.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 15.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.19.19 15.59	
o-Terphenyl	84-15-1	90	%	70-135	02.19.19 15.59	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-027	Date Collected:	02.12.19 12.40	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 12.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 12.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.23.19 12.39	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 12.39	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH14A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-028 Date Collected: 02.12.19 14.40 Sample Depth: 13 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 12.40 Basis: Wet Weight

Seq Number: 3079743

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.6**	25.0	mg/kg	02.19.19 20.08		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 16.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 16.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 16.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 16.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 16.19	
o-Terphenyl	84-15-1	91	%	70-135	02.19.19 16.19	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-028	Date Collected:	02.12.19 14.40	Sample Depth:	13 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 12.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 12.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	141	%	70-130	02.23.19 12.58	**
1,4-Difluorobenzene	540-36-3	95	%	70-130	02.23.19 12.58	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH15** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-029 Date Collected: 02.12.19 14.45 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.2**	24.8	mg/kg	02.19.19 19.09		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 16.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 16.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 16.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 16.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.19.19 16.38	
o-Terphenyl	84-15-1	105	%	70-135	02.19.19 16.38	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-029	Date Collected:	02.12.19 14.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 13.17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 13.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 13.17	
4-Bromofluorobenzene	460-00-4	114	%	70-130	02.23.19 13.17	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-030	Date Collected:	02.12.19 14.55	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.15	Basis:	Wet Weight
Seq Number:	3079748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.1**	5.00	mg/kg	02.19.19 18.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.19.19 11.00	Basis:	Wet Weight
Seq Number:	3079727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 16.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 16.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 16.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 16.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 16.58	
o-Terphenyl	84-15-1	92	%	70-135	02.19.19 16.58	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-030	Date Collected:	02.12.19 14.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 14.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 14.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.23.19 14.31	
4-Bromofluorobenzene	460-00-4	108	%	70-130	02.23.19 14.31	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH16** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-031 Date Collected: 02.13.19 08.50 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**76.0**	24.8	mg/kg	02.19.19 19.15		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 17.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 17.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 17.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 17.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 17.56	
o-Terphenyl	84-15-1	92	%	70-135	02.19.19 17.56	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH16**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-031	Date Collected:	02.13.19 08.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.23.19 14.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 14.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 14.50	
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.23.19 14.50	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH16A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-032 Date Collected: 02.13.19 08.55 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**167**	4.98	mg/kg	02.19.19 19.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.19.19 18.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.19.19 18.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.19.19 18.16	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.19.19 18.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 18.16	
o-Terphenyl	84-15-1	93	%	70-135	02.19.19 18.16	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH16A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-032	Date Collected:	02.13.19 08.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 15.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 15.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.23.19 15.09	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 15.09	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH17** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-033 Date Collected: 02.13.19 09.30 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1210**	49.9	mg/kg	02.19.19 19.27		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.19.19 11.00 Basis: Wet Weight

Seq Number: 3079727

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 18.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 18.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 18.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 18.35	
o-Terphenyl	84-15-1	90	%	70-135	02.19.19 18.35	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-033	Date Collected:	02.13.19 09.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 15.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 15.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 15.28	
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.23.19 15.28	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-034	Date Collected:	02.13.19 10.00	Sample Depth:	7 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.15	Basis:	Wet Weight
Seq Number:	3079748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**65.1**	25.0	mg/kg	02.19.19 19.49		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.19.19 11.00	Basis:	Wet Weight
Seq Number:	3079727				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.19.19 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 18.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.19.19 18.55	
o-Terphenyl	84-15-1	90	%	70-135	02.19.19 18.55	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-034	Date Collected:	02.13.19 10.00	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 16.00	Basis:	Wet Weight
Seq Number:	3080177				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.23.19 15.47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.23.19 15.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 15.47	
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.23.19 15.47	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-035	Date Collected:	02.13.19 10.10	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.15	Basis:	Wet Weight
Seq Number:	3079748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**196**	5.00	mg/kg	02.19.19 19.55		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 18.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 18.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 18.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 18.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.20.19 18.57	
o-Terphenyl	84-15-1	86	%	70-135	02.20.19 18.57	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-035	Date Collected:	02.13.19 10.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 20.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 20.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.23.19 20.10	
4-Bromofluorobenzene	460-00-4	105	%	70-130	02.23.19 20.10	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH18A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-036 Date Collected: 02.13.19 10.15 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**148**	4.96	mg/kg	02.20.19 15.38		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 19.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 19.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 19.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.20.19 19.17	
o-Terphenyl	84-15-1	90	%	70-135	02.20.19 19.17	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-036	Date Collected:	02.13.19 10.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 20.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 20.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 20.29	
4-Bromofluorobenzene	460-00-4	108	%	70-130	02.23.19 20.29	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH19** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-037 Date Collected: 02.13.19 11.00 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	4.97	mg/kg	02.20.19 08.49		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 20.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	**33.4**	15.0	mg/kg	02.20.19 20.16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 20.16	U	1
Total TPH	PHC635	**33.4**	15.0	mg/kg	02.20.19 20.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.20.19 20.16	
o-Terphenyl	84-15-1	89	%	70-135	02.20.19 20.16	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-037	Date Collected:	02.13.19 11.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.23.19 20.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.23.19 20.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	02.23.19 20.48	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 20.48	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH19A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-038 Date Collected: 02.13.19 11.35 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**200**	4.98	mg/kg	02.19.19 20.20		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 20.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 20.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 20.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 20.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.20.19 20.36	
o-Terphenyl	84-15-1	89	%	70-135	02.20.19 20.36	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-038	Date Collected:	02.13.19 11.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 21.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 21.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 21.07	
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.23.19 21.07	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH20** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-039 Date Collected: 02.13.19 13.20 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.4**	24.9	mg/kg	02.19.19 20.14		5

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 20.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 20.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 20.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 20.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.20.19 20.56	
o-Terphenyl	84-15-1	90	%	70-135	02.20.19 20.56	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH20**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-039	Date Collected:	02.13.19 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.23.19 21.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.23.19 21.26	
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 21.26	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH20A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-040 Date Collected: 02.13.19 13.30 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**241**	24.9	mg/kg	02.19.19 20.38		5

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 21.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.20.19 21.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.20.19 21.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.20.19 21.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.20.19 21.16	
o-Terphenyl	84-15-1	92	%	70-135	02.20.19 21.16	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH20A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-040	Date Collected:	02.13.19 13.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 21.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 21.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.23.19 21.45	
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.23.19 21.45	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH21** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-041 Date Collected: 02.13.19 14.00 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	5.00	mg/kg	02.19.19 20.45		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 04.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 04.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 04.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 04.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.19.19 04.11	
o-Terphenyl	84-15-1	91	%	70-135	02.19.19 04.11	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH21**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-041	Date Collected:	02.13.19 14.00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 22.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 22.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.23.19 22.04	
4-Bromofluorobenzene	460-00-4	110	%	70-130	02.23.19 22.04	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH21A** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-042 Date Collected: 02.13.19 14.05 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**230**	5.01	mg/kg	02.19.19 21.06		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 04.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 04.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 04.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 04.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 04.30	
o-Terphenyl	84-15-1	93	%	70-135	02.19.19 04.30	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH21A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-042	Date Collected:	02.13.19 14.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.23.19 22.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.23.19 22.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 22.23	
4-Bromofluorobenzene	460-00-4	114	%	70-130	02.23.19 22.23	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH22** Matrix: Soil Date Received:02.18.19 07.33

Lab Sample Id: 614850-043 Date Collected: 02.13.19 14.30 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.19 13.15 Basis: Wet Weight

Seq Number: 3079748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**502**	24.8	mg/kg	02.19.19 21.12		5

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 04.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 04.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 04.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 04.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.19.19 04.51	
o-Terphenyl	84-15-1	95	%	70-135	02.19.19 04.51	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH22**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-043	Date Collected:	02.13.19 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.23.19 22.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.23.19 22.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 22.42	
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.23.19 22.42	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH22A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-044	Date Collected:	02.13.19 15.00	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.19.19 13.15	Basis:	Wet Weight
Seq Number:	3079748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.4**	4.98	mg/kg	02.20.19 08.55		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 05.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.19.19 05.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.19.19 05.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.19.19 05.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.19.19 05.11	
o-Terphenyl	84-15-1	92	%	70-135	02.19.19 05.11	

Certificate of Analytical Results 614850

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH22A**	Matrix:	Soil	Date Received:	02.18.19 07.33
Lab Sample Id:	614850-044	Date Collected:	02.13.19 15.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.22.19 17.00	Basis:	Wet Weight
Seq Number:	3080181				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.23.19 23.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.23.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.23.19 23.01	
1,4-Difluorobenzene	540-36-3	115	%	70-130	02.23.19 23.01	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 614850

LT Environmental, Inc.

JRU DI 1

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: 3079743 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672093-1-BLK — LCS Sample Id: 7672093-1-BKS — LCSD Sample Id: 7672093-1-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	259	104	259	104	90-110	0	20	mg/kg	02.19.19 15:28	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079748 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672094-1-BLK — LCS Sample Id: 7672094-1-BKS — LCSD Sample Id: 7672094-1-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	230	92	230	92	90-110	0	20	mg/kg	02.19.19 18:38	

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	

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	

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 614850

LT Environmental, Inc.

JRU DI 1

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079743 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614850-009 — MS Sample Id: 614850-009 S — MSD Sample Id: 614850-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3270	248	6430	1274	6440	1278	90-110	0	20	mg/kg	02.19.19 15:57	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079743 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614850-019 — MS Sample Id: 614850-019 S — MSD Sample Id: 614850-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1460	250	4250	1116	4240	1112	90-110	0	20	mg/kg	02.19.19 18:12	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079748 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614850-030 — MS Sample Id: 614850-030 S — MSD Sample Id: 614850-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	86.1	250	352	106	330	98	90-110	6	20	mg/kg	02.19.19 18:56	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3079748 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614850-038 — MS Sample Id: 614850-038 S — MSD Sample Id: 614850-038 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	200	249	428	92	434	94	90-110	1	20	mg/kg	02.19.19 20:26	

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

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 614850

LT Environmental, Inc.

JRU DI 1

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3079727 — Matrix: Solid — Date Prep: 02.19.19
MB Sample Id: 7672124-1-BLK — LCS Sample Id: 7672124-1-BKS — LCSD Sample Id: 7672124-1-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	905	91	947	95	70-135	5	20	mg/kg	02.19.19 12:43	
Diesel Range Organics (DRO)	<8.13	1000	902	90	933	93	70-135	3	20	mg/kg	02.19.19 12:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		118		123		70-135	%	02.19.19 12:43
o-Terphenyl	97		115		119		70-135	%	02.19.19 12:43

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

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3080092 — Matrix: Solid — Date Prep: 02.21.19
MB Sample Id: 7672281-1-BLK — LCS Sample Id: 7672281-1-BKS — LCSD Sample Id: 7672281-1-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	970	97	915	92	70-135	6	20	mg/kg	02.21.19 12:37	
Diesel Range Organics (DRO)	<8.13	1000	1080	108	1020	102	70-135	6	20	mg/kg	02.21.19 12:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		128		123		70-135	%	02.21.19 12:37
o-Terphenyl	104		119		109		70-135	%	02.21.19 12:37

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 614850

LT Environmental, Inc.

JRU DI 1

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: 3079727 — Matrix: Soil — Date Prep: 02.19.19
Parent Sample Id: 614850-021 — MS Sample Id: 614850-021 S — MSD Sample Id: 614850-021 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)	<7.99	998	964	97	975	98	70-135	1	20	mg/kg	02.19.19 13:42	
Diesel Range Organics (DRO)	<8.11	998	972	97	993	99	70-135	2	20	mg/kg	02.19.19 13:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		121		70-135	%	02.19.19 13:42
o-Terphenyl	114		114		70-135	%	02.19.19 13:42

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 614850

LT Environmental, Inc.

JRU DI 1

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3080092 | Matrix: Soil | Date Prep: 02.21.19
Parent Sample Id: 614850-001 | MS Sample Id: 614850-001 S | MSD Sample Id: 614850-001 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	863	86	874	88	70-135	1	20	mg/kg	02.21.19 13:49	
Diesel Range Organics (DRO)	196	998	974	78	995	80	70-135	2	20	mg/kg	02.21.19 13:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		115		70-135	%	02.21.19 13:49
o-Terphenyl	105		101		70-135	%	02.21.19 13:49

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: 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

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 614850

LT Environmental, Inc.

JRU DI 1

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080177 — Matrix: Solid — Date Prep: 02.22.19
MB Sample Id: 7672390-1-BLK — LCS Sample Id: 7672390-1-BKS — LCSD Sample Id: 7672390-1-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	0.120	121	0.113	112	70-130	6	35	mg/kg	02.23.19 08:33	
Toluene	<0.000453	0.0994	0.101	102	0.0961	95	70-130	5	35	mg/kg	02.23.19 08:33	
Ethylbenzene	<0.000561	0.0994	0.0952	96	0.0900	89	70-130	6	35	mg/kg	02.23.19 08:33	
m,p-Xylenes	<0.00101	0.199	0.189	95	0.179	89	70-130	5	35	mg/kg	02.23.19 08:33	
o-Xylene	<0.000342	0.0994	0.0953	96	0.0912	90	70-130	4	35	mg/kg	02.23.19 08:33	

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	%	02.23.19 08:33
4-Bromofluorobenzene	97		101		102		70-130	%	02.23.19 08:33

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080181 — Matrix: Solid — Date Prep: 02.22.19
MB Sample Id: 7672392-1-BLK — LCS Sample Id: 7672392-1-BKS — LCSD Sample Id: 7672392-1-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	0.120	120	0.115	116	70-130	4	35	mg/kg	02.23.19 18:18	
Toluene	<0.000456	0.100	0.104	104	0.0983	99	70-130	6	35	mg/kg	02.23.19 18:18	
Ethylbenzene	<0.000565	0.100	0.0977	98	0.0929	93	70-130	5	35	mg/kg	02.23.19 18:18	
m,p-Xylenes	<0.00101	0.200	0.195	98	0.185	93	70-130	5	35	mg/kg	02.23.19 18:18	
o-Xylene	<0.000344	0.100	0.0976	98	0.0929	93	70-130	5	35	mg/kg	02.23.19 18:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		110		111		70-130	%	02.23.19 18:18
4-Bromofluorobenzene	94		101		103		70-130	%	02.23.19 18:18

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

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 614850

LT Environmental, Inc.

JRU DI 1

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

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080177 — Matrix: Soil — Date Prep: 02.22.19
Parent Sample Id: 614850-020 — MS Sample Id: 614850-020 S — MSD Sample Id: 614850-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0862	87	0.0216	22	70-130	120	35	mg/kg	02.23.19 09:11	XF
Toluene	<0.000454	0.0996	0.0752	76	0.0320	32	70-130	81	35	mg/kg	02.23.19 09:11	XF
Ethylbenzene	<0.000563	0.0996	0.0676	68	0.0403	40	70-130	51	35	mg/kg	02.23.19 09:11	XF
m,p-Xylenes	<0.00101	0.199	0.135	68	0.0810	41	70-130	50	35	mg/kg	02.23.19 09:11	XF
o-Xylene	<0.000343	0.0996	0.0695	70	0.0383	38	70-130	58	35	mg/kg	02.23.19 09:11	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		103		70-130	%	02.23.19 09:11
4-Bromofluorobenzene	107		121		70-130	%	02.23.19 09:11

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080181 — Matrix: Soil — Date Prep: 02.22.19
Parent Sample Id: 614850-035 — MS Sample Id: 614850-035 S — MSD Sample Id: 614850-035 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	0.0599	60	0.0975	98	70-130	48	35	mg/kg	02.23.19 18:56	XF
Toluene	<0.000457	0.100	0.0689	69	0.0827	83	70-130	18	35	mg/kg	02.23.19 18:56	X
Ethylbenzene	<0.000566	0.100	0.0670	67	0.0739	74	70-130	10	35	mg/kg	02.23.19 18:56	X
m,p-Xylenes	<0.00401	0.200	0.131	66	0.148	74	70-130	12	35	mg/kg	02.23.19 18:56	X
o-Xylene	<0.000345	0.100	0.0637	64	0.0738	74	70-130	15	35	mg/kg	02.23.19 18:56	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		110		70-130	%	02.23.19 18:56
4-Bromofluorobenzene	107		104		70-130	%	02.23.19 18:56

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

Page 518 of 1119

Chain of Custody

Work Order No: 614850

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 5

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/Ggreen@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:	JRU DI 1	Turn Around	
Project Number:		Routine	☒
P.O. Number:	2RP-3524 / 3046	Rush:	
Sampler's Name:	Garrett Green	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)
PH1	S	02/08/19	0900	1'	1	X	X	X
PH1a	S	02/08/19	0910	5'	1	X	X	X
PH2	S	02/08/19	0930	1'	1	X	X	X
PH2a	S	02/08/19	0935	2'	1	X	X	X
PH3	S	02/08/19	1000	1'	1	X	X	X
PH3a	S	02/08/19	1010	2'	1	X	X	X
PH4	S	02/11/19	0900	1'	1	X	X	X
PH4a	S	02/11/19	0905	2'	1	X	X	X
PH5	S	02/11/19	0940	5'	1	X	X	X
PH5a	S	02/11/19	0955	7'	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			02/14/19 - 1515	2		2/18/19 0733
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 111 of 117

Page 519 of 1119

Chain of Custody

Work Order No: 1e14850

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 2 of 5

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/Ggreen@LTenv.com

Work Order Comments

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

Project Name:	JRU DI 1	Turn Around	
Project Number:		Routine	☒
P.O. Number:	2RP-3524 / 3064	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 \ 0.2	Thermometer ID:	IR6	
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)
PH6	S	02/11/19	1010	2'	1	X	X	X
PH6a	S	02/11/19	1025	4'	1	X	X	X
PH7	S	02/11/19	1035	1'	1	X	X	X
PH7a	S	02/11/19	1045	3'	1	X	X	X
PH8	S	02/11/19	1105	3'	1	X	X	X
PH8a	S	02/11/19	1125	6'	1	X	X	X
PH9	S	02/11/19	1250	1'	1	X	X	X
PH9a	S	02/11/19	1345	7'	1	X	X	X
PH10	S	02/12/19	0910	1'	1	X	X	X
PH10a	S	02/12/19	0920	2'	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	Daniel Sanchez		02/14/19 - 1515	2		2/18/19 0733
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 112 of 117

Page 520 of 1119

Chain of Custody

Work Order No: 614850

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 3 of 5

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/Ggreen@LTenv.com

Work Order Comments

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

Project Name:	JRU DI 7	Turn Around	
Project Number:		Routine	☒
P.O. Number:	2RP-3524/3046	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3/0.2	Thermometer ID:	1E
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)
PH11	S	02/12/19	0930	1'	1	X	X	X
PH11a	S	02/12/19	0940	2'	1	X	X	X
PH12	S	02/12/19	0950	1'	1	X	X	X
PH12a	S	02/12/19	1050	8'	1	X	X	X
PH13	S	02/12/19	1105	1'	1	X	X	X
PH13a	S	02/12/19	1130	4'	1	X	X	X
PH14	S	02/12/19	1240	3'	1	X	X	X
PH14a	S	02/12/19	1440	13'	1	X	X	X
PH15	S	02/12/19	1445	1'	1	X	X	X
PH15a	S	02/12/19	1455	2'	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	Garrett Green		02/14/19 - 1515	2		2/18/19 0933
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 113 of 117

Page 521 of 1119

Chain of Custody

Work Order No: 614950

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 4 of 5

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 / bgreen@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:	JRU DI 7
Project Number:	
P.O. Number:	ZRP-3524 / 3046
Sampler's Name:	Garrett Green

Turn Around

Routine ☒
Rush:
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:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH16	S	02/13/19	0850	1'	1	X	X	X
PH16a	S	02/13/19	0855	2'	1	X	X	X
PH17	S	02/13/19	0930	3'	1	X	X	X
PH17a	S	02/13/19	1000	7'	1	X	X	X
PH18	S	02/13/19	1010	1'	1	X	X	X
PH18a	S	02/13/19	1015	2'	1	X	X	X
PH19	S	02/13/19	1100	1'	1	X	X	X
PH19a	S	02/13/19	1135	4'	1	X	X	X
PH20	S	02/13/19	1320	1'	1	X	X	X
PH20a	S	02/13/19	1330	2'	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			02/14/19 - 1515	2			2/19/19 0733
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 114 of 117

Page 522 of 1119

Chain of Custody

Work Order No: 1e14950

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/Ggreen@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:	JRU D17	Turn Around	
Project Number:		Routine	X
P.O. Number:	2RP-3524/3046	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3/0.2	Thermometer ID:	IR6	
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)
PH21	S	02/13/19	1400	3'	X	X	X	X
PH21a	S	02/13/19	1405	4'	X	X	X	X
PH22	S	02/13/19	1430	2'	X	X	X	X
PH22a	S	02/13/19	1500	6'		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	Garrett Green		02/14/19 - 1515	2		2/18/19 0733
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 115 of 117



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 #: 614850

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 615312

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 1

27-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)

27-FEB-19

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

Reference: XENCO Report No(s): **615312**
JRU DI 1
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) 615312. 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. 615312 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 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH27	S	02-15-19 08:40	1 ft	615312-001
PH27A	S	02-15-19 09:10	2 ft	615312-002
PH28	S	02-15-19 09:35	1 ft	615312-003
PH28A	S	02-15-19 10:30	5 ft	615312-004
PH29	S	02-15-19 14:20	1 ft	615312-005
PH29A	S	02-15-19 14:30	2 ft	615312-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1

Project ID:
Work Order Number(s): *615312*

Report Date: *27-FEB-19*
Date Received: *02/21/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3080464 BTEX by EPA 8021B

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

Certificate of Analysis Summary 615312

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Thu Feb-21-19 12:50 pm

Report Date: 27-FEB-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	615312-001		615312-002		615312-003		615312-004		615312-005		615312-006	
	Field Id:	PH27		PH27A		PH28		PH28A		PH29		PH29A	
	Depth:	1- ft		2- ft		1- ft		5- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-15-19 08:40		Feb-15-19 09:10		Feb-15-19 09:35		Feb-15-19 10:30		Feb-15-19 14:20		Feb-15-19 14:30	
BTEX by EPA 8021B	***Extracted:***	Feb-26-19 15:00		Feb-26-19 15:00		Feb-26-19 15:00		Feb-26-19 15:00		Feb-26-19 15:00		Feb-26-19 15:00	
	Analyzed:	Feb-27-19 05:51		Feb-27-19 06:10		Feb-27-19 06:29		Feb-27-19 06:48		Feb-27-19 07:07		Feb-27-19 07:26	
	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	<0.00202	0.00202	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Feb-22-19 15:30		Feb-22-19 15:30		Feb-22-19 15:30		Feb-22-19 15:30		Feb-22-19 15:30		Feb-22-19 15:30	
	Analyzed:	Feb-25-19 09:34		Feb-25-19 09:40		Feb-23-19 01:47		Feb-23-19 01:53		Feb-25-19 09:46		Feb-23-19 01:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		20.3	4.99	27.1	4.99	2010	49.9	264	49.9	130	5.00	112	4.95
TPH by SW8015 Mod	***Extracted:***	Feb-22-19 07:00		Feb-22-19 07:00		Feb-22-19 07:00		Feb-22-19 07:00		Feb-22-19 07:00		Feb-22-19 07:00	
	Analyzed:	Feb-22-19 18:49		Feb-22-19 19:09		Feb-22-19 19:28		Feb-22-19 19:48		Feb-22-19 20:08		Feb-22-19 20:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH27** Matrix: Soil Date Received:02.21.19 12.50

Lab Sample Id: 615312-001 Date Collected: 02.15.19 08.40 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.22.19 15.30 Basis: Wet Weight

Seq Number: 3080225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20.3**	4.99	mg/kg	02.25.19 09.34		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.22.19 07.00 Basis: Wet Weight

Seq Number: 3080226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 18.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 18.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 18.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 18.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.22.19 18.49	
o-Terphenyl	84-15-1	94	%	70-135	02.22.19 18.49	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH27**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-001	Date Collected:	02.15.19 08.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.27.19 05.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.27.19 05.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.27.19 05.51	
4-Bromofluorobenzene	460-00-4	104	%	70-130	02.27.19 05.51	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH27A**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-002	Date Collected:	02.15.19 09.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.22.19 15.30	Basis:	Wet Weight
Seq Number:	3080225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.1**	4.99	mg/kg	02.25.19 09.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.22.19 07.00	Basis:	Wet Weight
Seq Number:	3080226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 19.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 19.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 19.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 19.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.22.19 19.09	
o-Terphenyl	84-15-1	94	%	70-135	02.22.19 19.09	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH27A**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-002	Date Collected:	02.15.19 09.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.27.19 06.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.27.19 06.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	02.27.19 06.10	
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.27.19 06.10	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH28** Matrix: Soil Date Received:02.21.19 12.50

Lab Sample Id: 615312-003 Date Collected: 02.15.19 09.35 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.22.19 15.30 Basis: Wet Weight

Seq Number: 3080225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2010**	49.9	mg/kg	02.23.19 01.47		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.22.19 07.00 Basis: Wet Weight

Seq Number: 3080226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 19.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 19.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 19.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 19.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.22.19 19.28	
o-Terphenyl	84-15-1	93	%	70-135	02.22.19 19.28	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH28**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-003	Date Collected:	02.15.19 09.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.27.19 06.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.27.19 06.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.27.19 06.29	
4-Bromofluorobenzene	460-00-4	129	%	70-130	02.27.19 06.29	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH28A**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-004	Date Collected:	02.15.19 10.30	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	02.22.19 15.30	Basis:	Wet Weight
Seq Number:	3080225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**264**	49.9	mg/kg	02.23.19 01.53		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.22.19 07.00	Basis:	Wet Weight
Seq Number:	3080226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 19.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 19.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 19.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 19.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	02.22.19 19.48	
o-Terphenyl	84-15-1	104	%	70-135	02.22.19 19.48	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH28A**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-004	Date Collected:	02.15.19 10.30	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.27.19 06.48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.27.19 06.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.27.19 06.48	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.27.19 06.48	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH29** Matrix: Soil Date Received:02.21.19 12.50

Lab Sample Id: 615312-005 Date Collected: 02.15.19 14.20 Sample Depth: 1 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.22.19 15.30 Basis: Wet Weight

Seq Number: 3080225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**130**	5.00	mg/kg	02.25.19 09.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.22.19 07.00 Basis: Wet Weight

Seq Number: 3080226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 20.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 20.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.22.19 20.08	
o-Terphenyl	84-15-1	93	%	70-135	02.22.19 20.08	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH29**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-005	Date Collected:	02.15.19 14.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.27.19 07.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.27.19 07.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.27.19 07.07	
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.27.19 07.07	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH29A** Matrix: Soil Date Received:02.21.19 12.50

Lab Sample Id: 615312-006 Date Collected: 02.15.19 14.30 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.22.19 15.30 Basis: Wet Weight

Seq Number: 3080225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**112**	4.95	mg/kg	02.23.19 01.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.22.19 07.00 Basis: Wet Weight

Seq Number: 3080226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.22.19 20.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.22.19 20.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.22.19 20.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.22.19 20.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.22.19 20.28	
o-Terphenyl	84-15-1	91	%	70-135	02.22.19 20.28	

Certificate of Analytical Results 615312

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH29A**	Matrix:	Soil	Date Received:	02.21.19 12.50
Lab Sample Id:	615312-006	Date Collected:	02.15.19 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	02.26.19 15.00	Basis:	Wet Weight
Seq Number:	3080464				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.27.19 07.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.27.19 07.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	02.27.19 07.26	
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.27.19 07.26	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 615312

LT Environmental, Inc.

JRU DI 1

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080225 — Matrix: Solid — Date Prep: 02.22.19
MB Sample Id: 7672347-1-BLK — LCS Sample Id: 7672347-1-BKS — LCSD Sample Id: 7672347-1-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	250	100	257	103	90-110	3	20	mg/kg	02.23.19 00:19	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080225 — Matrix: Soil — Date Prep: 02.22.19
Parent Sample Id: 615310-005 — MS Sample Id: 615310-005 S — MSD Sample Id: 615310-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	209	249	466	103	452	98	90-110	3	20	mg/kg	02.23.19 00:37	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080225 — Matrix: Soil — Date Prep: 02.22.19
Parent Sample Id: 615312-006 — MS Sample Id: 615312-006 S — MSD Sample Id: 615312-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	112	248	357	99	348	95	90-110	3	20	mg/kg	02.23.19 02:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3080226 — Matrix: Solid — Date Prep: 02.22.19
MB Sample Id: 7672373-1-BLK — LCS Sample Id: 7672373-1-BKS — LCSD Sample Id: 7672373-1-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	930	93	991	99	70-135	6	20	mg/kg	02.22.19 12:17	
Diesel Range Organics (DRO)	<8.13	1000	927	93	980	98	70-135	6	20	mg/kg	02.22.19 12:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		122		129		70-135	%	02.22.19 12:17
o-Terphenyl	101		118		125		70-135	%	02.22.19 12:17

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

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

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

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

QC Summary 615312

LT Environmental, Inc.

JRU DI 1

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3080226 — Matrix: Soil — Date Prep: 02.22.19
Parent Sample Id: 614862-001 — MS Sample Id: 614862-001 S — MSD Sample Id: 614862-001 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	970	97	951	95	70-135	2	20	mg/kg	02.22.19 13:16	
Diesel Range Organics (DRO)	<8.13	1000	988	99	986	99	70-135	0	20	mg/kg	02.22.19 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		125		70-135	%	02.22.19 13:16
o-Terphenyl	119		117		70-135	%	02.22.19 13:16

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080464 — Matrix: Solid — Date Prep: 02.26.19
MB Sample Id: 7672577-1-BLK — LCS Sample Id: 7672577-1-BKS — LCSD Sample Id: 7672577-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.121	121	0.123	123	70-130	2	35	mg/kg	02.26.19 23:54	
Toluene	<0.000457	0.100	0.105	105	0.106	106	70-130	1	35	mg/kg	02.26.19 23:54	
Ethylbenzene	<0.000567	0.100	0.100	100	0.101	101	70-130	1	35	mg/kg	02.26.19 23:54	
m,p-Xylenes	<0.00102	0.201	0.200	100	0.200	100	70-130	0	35	mg/kg	02.26.19 23:54	
o-Xylene	<0.000346	0.100	0.100	100	0.101	101	70-130	1	35	mg/kg	02.26.19 23:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	02.26.19 23:54
4-Bromofluorobenzene	97		100		100		70-130	%	02.26.19 23:54

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080464 — Matrix: Soil — Date Prep: 02.26.19
Parent Sample Id: 615310-003 — MS Sample Id: 615310-003 S — MSD Sample Id: 615310-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0977	98	0.105	105	70-130	7	35	mg/kg	02.27.19 00:32	
Toluene	<0.000454	0.0996	0.0814	82	0.0867	87	70-130	6	35	mg/kg	02.27.19 00:32	
Ethylbenzene	<0.000563	0.0996	0.0719	72	0.0769	77	70-130	7	35	mg/kg	02.27.19 00:32	
m,p-Xylenes	<0.00101	0.199	0.145	73	0.155	78	70-130	7	35	mg/kg	02.27.19 00:32	
o-Xylene	0.000393	0.0996	0.0738	74	0.0787	78	70-130	6	35	mg/kg	02.27.19 00:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		110		70-130	%	02.27.19 00:32
4-Bromofluorobenzene	103		102		70-130	%	02.27.19 00:32

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

Page 545 of 1119

Chain of Custody

Work Order No: 615312

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
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.704.5178	Email:	ABaker@LTenv.com/ggreen@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:	JRUDI 1	Turn Around	
Project Number:		Routine	☑
P.O. Number:	2RP-3524 / 3046	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.5/0.4	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)
PH27	S	2/15/19	0840	1'	1	X	X	X
PH27a	S	2/15/19	0910	2'	1	X	X	X
PH28	S	2/15/19	0935	1'	1	X	X	X
PH28a	S	2/15/19	1030	5'	1	X	X	X
PH29	S	2/15/19	1420	1'	1	X	X	X
PH29a	S	2/15/19	1430	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	Anna Byers	2/19/19 1730	2 Anna Byers		2/20/19 1320
3	Patrick	2/21/19 1250	4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 21 of 22

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/21/2019 12:50:00 PM

Work Order #: 615312

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: 02/21/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/21/2019

Jessica Kramer

ANALYTICAL REPORT

December 28, 2017

XTO Energy- Delaware Division

Sample Delivery Group:	L958014
Samples Received:	12/15/2017
Project Number:	30-015-41074
Description:	JRU DI 1

Report To: Kyle Littrell
6401 N Holiday Hill Rd
Suite 200
Midland, TX 79707

Entire Report Reviewed By:

Nancy McLain
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

PERBC-121317-1035 L958014-01 5

PERBC-121317-1040 L958014-02 6

PERBC-121317-1045 L958014-03 7

PERBC-121317-1049 L958014-04 8

PERBC-121317-1055 L958014-05 9

Qc: Quality Control Summary 10

Total Solids by Method 2540 G-2011 10

Wet Chemistry by Method 300.0 11

Volatile Organic Compounds (GC) by Method 8015/8021 12

Semi-Volatile Organic Compounds (GC) by Method 8015 14

Gl: Glossary of Terms 15

Al: Accreditations & Locations 16

Sc: Sample Chain of Custody 17

PERBC-121317-1035 L958014-01 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:35 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	100	12/18/17 15:11	12/18/17 20:26	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:31	12/19/17 00:16	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 14:06	ACM

PERBC-121317-1040 L958014-02 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:40 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	5	12/18/17 15:11	12/18/17 20:34	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:31	12/19/17 00:39	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 14:23	ACM

PERBC-121317-1045 L958014-03 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:45 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	20	12/18/17 15:11	12/18/17 21:00	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:31	12/19/17 01:02	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 14:40	ACM

PERBC-121317-1049 L958014-04 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:49 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	20	12/18/17 15:11	12/18/17 21:08	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:31	12/19/17 01:25	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	1	12/23/17 08:36	12/26/17 14:58	ACM

PERBC-121317-1055 L958014-05 Solid

Collected by: Bradon Cohorn | Collected date/time: 12/13/17 10:55 | Received date/time: 12/15/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1055690	1	12/20/17 15:05	12/20/17 15:17	JD
Wet Chemistry by Method 300.0	WG1054434	20	12/18/17 15:11	12/18/17 21:17	DR
Volatile Organic Compounds (GC) by Method 8015/8021	WG1055011	1	12/16/17 16:31	12/19/17 01:48	ACE
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1055878	5	12/23/17 08:36	12/26/17 15:50	ACM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.6		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	36300		1000	100	12/18/2017 20:26	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00102		0.000500	1	12/19/2017 00:16	WG1055011
Toluene	ND		0.00500	1	12/19/2017 00:16	WG1055011
Ethylbenzene	0.000887		0.000500	1	12/19/2017 00:16	WG1055011
Total Xylene	0.00230		0.00150	1	12/19/2017 00:16	WG1055011
TPH (GC/FID) Low Fraction	0.286		0.100	1	12/19/2017 00:16	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*96.2*		*77.0-120*		*12/19/2017 00:16*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*97.5*		*75.0-128*		*12/19/2017 00:16*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	17.1		4.00	1	12/26/2017 14:06	WG1055878
C28-C40 Oil Range	10.2		4.00	1	12/26/2017 14:06	WG1055878
(S) o-Terphenyl	*46.9*		*18.0-148*		*12/26/2017 14:06*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.3		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	1600		50.0	5	12/18/2017 20:34	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	12/19/2017 00:39	WG1055011
Toluene	ND		0.00500	1	12/19/2017 00:39	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 00:39	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 00:39	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 00:39	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*97.6*		*77.0-120*		*12/19/2017 00:39*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*97.5*		*75.0-128*		*12/19/2017 00:39*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	7.45		4.00	1	12/26/2017 14:23	WG1055878
C28-C40 Oil Range	8.72		4.00	1	12/26/2017 14:23	WG1055878
(S) o-Terphenyl	*30.1*		*18.0-148*		*12/26/2017 14:23*	WG1055878

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	9720		200	20	12/18/2017 21:00	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	12/19/2017 01:02	WG1055011
Toluene	ND		0.00500	1	12/19/2017 01:02	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 01:02	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 01:02	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 01:02	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*99.7*		*77.0-120*		*12/19/2017 01:02*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*99.9*		*75.0-128*		*12/19/2017 01:02*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	10.8		4.00	1	12/26/2017 14:40	WG1055878
C28-C40 Oil Range	11.3		4.00	1	12/26/2017 14:40	WG1055878
(S) o-Terphenyl	*77.2*		*18.0-148*		*12/26/2017 14:40*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	8240		200	20	12/18/2017 21:08	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	12/19/2017 01:25	WG1055011
Toluene	ND		0.00500	1	12/19/2017 01:25	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 01:25	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 01:25	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 01:25	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*100*		*77.0-120*		*12/19/2017 01:25*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*100*		*75.0-128*		*12/19/2017 01:25*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	8.04		4.00	1	12/26/2017 14:58	WG1055878
C28-C40 Oil Range	ND		4.00	1	12/26/2017 14:58	WG1055878
(S) o-Terphenyl	*52.0*		*18.0-148*		*12/26/2017 14:58*	WG1055878

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.7		1	12/20/2017 15:17	WG1055690

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	7510		200	20	12/18/2017 21:17	WG1054434

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	12/19/2017 01:48	WG1055011
Toluene	ND		0.00500	1	12/19/2017 01:48	WG1055011
Ethylbenzene	ND		0.000500	1	12/19/2017 01:48	WG1055011
Total Xylene	ND		0.00150	1	12/19/2017 01:48	WG1055011
TPH (GC/FID) Low Fraction	ND		0.100	1	12/19/2017 01:48	WG1055011
(S) a,a,a-Trifluorotoluene(FID)	*99.6*		*77.0-120*		*12/19/2017 01:48*	WG1055011
(S) a,a,a-Trifluorotoluene(PID)	*99.2*		*75.0-128*		*12/19/2017 01:48*	WG1055011

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	23.5		20.0	5	12/26/2017 15:50	WG1055878
C28-C40 Oil Range	35.7		20.0	5	12/26/2017 15:50	WG1055878
(S) o-Terphenyl	*75.0*		*18.0-148*		*12/26/2017 15:50*	WG1055878

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3274726-1 12/20/17 15:17

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L958015-01 Original Sample (OS) • Duplicate (DUP)

(OS) L958015-01 12/20/17 15:17 • (DUP) R3274726-3 12/20/17 15:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.7	87.9	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3274726-2 12/20/17 15:17

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3274000-1 12/18/17 16:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		0.795	10.0

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3274000-4 12/18/17 18:43

Analyte	Original Result	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride		57.2	1	7.51		20

L958014-05 Original Sample (OS) • Duplicate (DUP)

(OS) L958014-05 12/18/17 21:17 • (DUP) R3274000-7 12/18/17 21:25

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7510	8630	20	13.9		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3274000-2 12/18/17 17:06 • (LCSD) R3274000-8 12/18/17 23:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	200	217	212	108	106	90-110			2.15	20

L958010-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-03 12/18/17 19:43 • (MS) R3274000-5 12/18/17 19:52 • (MSD) R3274000-6 12/18/17 20:00

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	421	898	886	95.4	93	1	80-120			1.29	20

Method Blank (MB)

(MB) R3275037-5 12/18/17 11:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*102*			*75.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275037-1 12/18/17 09:29 • (LCSD) R3275037-2 12/18/17 10:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0511	0.0513	102	103	71.0-121			0.386	20
Toluene	0.0500	0.0522	0.0522	104	104	72.0-120			0.0533	20
Ethylbenzene	0.0500	0.0541	0.0542	108	108	76.0-121			0.0987	20
Total Xylene	0.150	0.159	0.158	106	105	75.0-124			0.819	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*100*	*101*	*75.0-128*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275037-3 12/18/17 10:27 • (LCSD) R3275037-4 12/18/17 10:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	4.69	4.59	85.3	83.4	70.0-136			2.23	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*109*	*109*	*75.0-128*				

L958010-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-05 12/19/17 04:07 • (MS) R3275037-6 12/19/17 04:30 • (MSD) R3275037-7 12/19/17 04:53

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	6.48	22.0	22.3	62.0	63.3	500	10.0-146			1.47	29
Toluene	0.0500	77.0	90.6	92.4	54.6	61.9	500	10.0-143			1.98	30
Ethylbenzene	0.0500	38.0	56.6	58.1	74.5	80.3	500	10.0-147			2.49	31
Total Xylene	0.150	153	223	228	93.3	99.9	500	10.0-149	J5 J6	J5	2.17	30
(S) a,a,a-Trifluorotoluene(FID)					*87.3*	*87.3*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*98.3*	*98.7*		*75.0-128*				

L958010-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958010-05 12/19/17 04:07 • (MS) R3275037-8 12/19/17 05:16 • (MSD) R3275037-9 12/19/17 05:39

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	3210	4440	4510	44.8	47.2	500	10.0-147			1.46	30
(S) a,a,a-Trifluorotoluene(FID)					*90.6*	*89.7*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*100*	*100*		*75.0-128*				

Method Blank (MB)

(MB) R3275770-3 12/26/17 11:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*92.9*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275770-2 12/26/17 11:01 • (LCSD) R3275770-1 12/26/17 10:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	51.7	44.9	86.1	74.8	50.0-150			14.1	20
(S) o-Terphenyl				*98.2*	*92.7*	*18.0-148*				

L958015-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L958015-02 12/26/17 16:24 • (MS) R3275770-4 12/26/17 16:42 • (MSD) R3275770-5 12/26/17 16:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	402	412	574	17.3	287	5	50.0-150	V	J3 V	32.8	20
(S) o-Terphenyl					*71.5*	*69.0*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



XTO ENERGY
Western Division

Quote Number	Page 1 of 1	
XTO Contact: Kyle Littrell	XTO Contact Phone #: 1-970-317-1867	
Email Results to: Kyle_Littrell@XTOenergy.com; Abaker@LTenv.com		
Well Site/Location: JRU DL 1	API Number: 30-015-44074	Test Reason: Confirmation Soil Samples
Collected By: Braden Cohorn	Samples on Ice (Y) / N	Turnaround: ✓ Standard; ___ Next Day; ___ Two Day; ___ Three Day; ___ Std. 5 Bus. Days (by contract); Date Needed ___
Company: LT Environmental	QA/QC Requested	
Signature:	Gray Areas for Lab Use Only!	

Analysis

Sample ID	Sample Name	Media	Date	Time	Preservative	No. of Conts.	BTEX EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Sample Number
PER BC-121317-1035	SS 1	S	12/13/17	10:35	ICE	1	✓	✓	✓	-01
PER BC-121317-1040	SS 2	S	"	10:40	"	"	✓	✓	✓	-02
PER BC-121317-1045	SS 3	S	"	10:45	"	"	✓	✓	✓	-03
PER BC-121317-1049	SS 4	S	"	10:49	"	"	✓	✓	✓	-04
PER BC-121317-1055	SS 5	S	"	10:55	"	"	✓	✓	✓	-05

Lab Information

B109

L9580 14

Office Abbreviations
Farmington = FAR
Durango = DUR
Bakken = BAK
Raton = RAT
Piceance = PC
Roosevelt = RSV
La Barge = LB
Orangeville = OV
Permian = PER

Media: Filter = F Soil = S Wastewater = WW Groundwater = GW Drinking Waster = DW Sludge = SG Surface Water = SW Air = A Drill Mud = DM Other = OT

Relinquished By: (Signature)	Date: 12/14/17	Time: 9:30	Received By: (Signature)	Number of Bottles	Sample Condition: OK
Relinquished By: (Signature)	Date: 12/14/17	Time: 1430	Received By: (Signature) FedEx	Temperature: 2.9c	Other Information
Relinquished By: (Signature)	Date:	Time:	Received for Lab by: (Signature)	Date: 12/15/17 Time: 0845	

Comments: toll

* Sample ID will be the office and sampler-date-military time-sampler initials FARM-MMDDYY-1200

Count: 5407

ESC LAB SCIENCES
Cooler Receipt Form

Client: XTORNM	SDG#	L958014
Cooler Received/Opened On: 12/ 15/17	Temperature:	
Received by : Troy Dunlap		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Analytical Report 631513

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI 1

2RP-2440 13046

29-JUL-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

29-JUL-19

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

Reference: XENCO Report No(s): **631513**
JRU DI 1
Project Address: Delaware Basin

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) 631513. 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. 631513 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 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07-17-19 10:40	2 ft	631513-001
PH01A	S	07-17-19 10:55	4 ft	631513-002
PH02	S	07-17-19 11:05	1 ft	631513-003
PH02A	S	07-17-19 11:35	4 ft	631513-004
PH03	S	07-17-19 11:45	1 ft	631513-005
PH03A	S	07-17-19 12:30	4 ft	631513-006
PH04	S	07-17-19 12:40	1 ft	631513-007
PH04A	S	07-17-19 13:10	4 ft	631513-008
PH05	S	07-17-19 13:20	1 ft	631513-009
PH05A	S	07-17-19 13:50	4 ft	631513-010
PH06	S	07-17-19 14:00	1 ft	631513-011
PH06A	S	07-17-19 14:30	4 ft	631513-012
PH07	S	07-17-19 14:40	1 ft	631513-013
PH07A	S	07-17-19 15:10	4 ft	631513-014
PH08	S	07-17-19 15:20	1 ft	631513-015
PH08A	S	07-17-19 15:50	4 ft	631513-016
PH09	S	07-17-19 16:10	1 ft	631513-017
PH09A	S	07-17-19 16:30	4 ft	631513-018
PH10	S	07-17-19 16:50	1 ft	631513-019
PH10A	S	07-17-19 17:20	4 ft	631513-020
PH11	S	07-18-19 09:10	1 ft	631513-021
PH11A	S	07-18-19 09:50	4 ft	631513-022
PH12	S	07-18-19 10:10	1 ft	631513-023
PH12A	S	07-18-19 10:50	4 ft	631513-024
PH13	S	07-18-19 11:10	1 ft	631513-025
PH13A	S	07-18-19 12:00	4 ft	631513-026
PH14	S	07-18-19 12:15	1 ft	631513-027
PH14A	S	07-18-19 13:00	4 ft	631513-028

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1

Project ID: *2RP-2440 13046*
Work Order Number(s): *631513*

Report Date: *29-JUL-19*
Date Received: *07/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096597 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; data confirmed by re-analysis.
Samples affected are: 631513-007,631513-010,631513-009.

Batch: LBA-3096598 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3096729 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682994-1-BLK,631513-004,631513-005,631513-006,631513-020,631513-008,631513-009,631513-015,631513-017,631513-018,631513-003,631513-007.

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-001		631513-002		631513-003		631513-004		631513-005		631513-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	2- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 10:40		Jul-17-19 10:55		Jul-17-19 11:05		Jul-17-19 11:35		Jul-17-19 11:45		Jul-17-19 12:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-24-19 22:55		Jul-24-19 23:15		Jul-24-19 23:35		Jul-24-19 23:55		Jul-25-19 00:15		Jul-25-19 00:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398	<0.00403	0.00403
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30	
	Analyzed:	Jul-22-19 23:46		Jul-23-19 09:28		Jul-23-19 09:34		Jul-23-19 09:40		Jul-23-19 08:32		Jul-23-19 09:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		121	5.00	33.7	5.02	<4.96	4.96	12.0	4.97	222	5.00	26.9	5.05
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 11:59		Jul-27-19 13:11		Jul-27-19 13:35		Jul-27-19 13:59		Jul-27-19 14:23		Jul-27-19 14:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-007		631513-008		631513-009		631513-010		631513-011		631513-012	
	Field Id:	PH04		PH04A		PH05		PH05A		PH06		PH06A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 12:40		Jul-17-19 13:10		Jul-17-19 13:20		Jul-17-19 13:50		Jul-17-19 14:00		Jul-17-19 14:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-25-19 00:55		Jul-25-19 01:16		Jul-25-19 01:36		Jul-25-19 01:56		Jul-25-19 17:38		Jul-25-19 17:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00403	0.00403	<0.00399	0.00399	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30	
	Analyzed:	Jul-23-19 08:51		Jul-23-19 09:53		Jul-23-19 15:38		Jul-23-19 09:59		Jul-23-19 10:05		Jul-23-19 10:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		86.0	49.7	7.48	5.04	<5.00	5.00	34.3	4.96	19.3	5.01	6.64	4.98
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 15:11		Jul-27-19 15:35		Jul-27-19 15:59		Jul-27-19 16:23		Jul-27-19 17:11		Jul-27-19 17:35	
	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	<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-013		631513-014		631513-015		631513-016		631513-017		631513-018	
	Field Id:	PH07		PH07A		PH08		PH08A		PH09		PH09A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 14:40		Jul-17-19 15:10		Jul-17-19 15:20		Jul-17-19 15:50		Jul-17-19 16:10		Jul-17-19 16:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-25-19 18:19		Jul-25-19 18:39		Jul-25-19 18:59		Jul-25-19 19:19		Jul-25-19 19:39		Jul-25-19 19:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397	<0.00399	0.00399	<0.00398	0.00398	<0.00399	0.00399	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10	
	Analyzed:	Jul-23-19 10:18		Jul-23-19 10:24		Jul-23-19 15:46		Jul-23-19 15:41		Jul-23-19 10:37		Jul-23-19 10:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		23.5	5.00	<5.00	5.00	44.9	5.00	16.1	5.03	12.4	5.00	2600	49.8
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 17:58		Jul-27-19 18:22		Jul-27-19 18:46		Jul-27-19 19:10		Jul-27-19 19:34		Jul-27-19 19:57	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-019		631513-020		631513-021		631513-022		631513-023		631513-024	
	Field Id:	PH10		PH10A		PH11		PH11A		PH12		PH12A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 16:50		Jul-17-19 17:20		Jul-18-19 09:10		Jul-18-19 09:50		Jul-18-19 10:10		Jul-18-19 10:50	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35	
	Analyzed:	Jul-25-19 20:19		Jul-25-19 23:58		Jul-26-19 00:18		Jul-26-19 10:36		Jul-26-19 00:58		Jul-26-19 01:18	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10	
	Analyzed:	Jul-23-19 11:03		Jul-23-19 15:47		Jul-23-19 11:25		Jul-23-19 15:52		Jul-23-19 11:35		Jul-23-19 15:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	14.9	4.95	<5.05	5.05	<5.05	5.05	<5.05	5.05	<4.95	4.95
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00	
	Analyzed:	Jul-27-19 20:21		Jul-27-19 20:45		Jul-26-19 18:56		Jul-26-19 19:20		Jul-26-19 19:44		Jul-26-19 20:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-025		631513-026		631513-027		631513-028					
	Field Id:	PH13		PH13A		PH14		PH14A					
	Depth:	1- ft		4- ft		1- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jul-18-19 11:10		Jul-18-19 12:00		Jul-18-19 12:15		Jul-18-19 13:00					
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35					
	Analyzed:	Jul-26-19 01:38		Jul-26-19 01:58		Jul-26-19 02:18		Jul-26-19 02:38					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00401	0.00401	<0.00399	0.00399				
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200				
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10					
	Analyzed:	Jul-23-19 11:51		Jul-23-19 16:03		Jul-23-19 12:08		Jul-23-19 16:08					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<5.02	5.02	<4.99	4.99	14.5	5.03	<4.97	4.97				
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00					
	Analyzed:	Jul-26-19 20:32		Jul-26-19 20:56		Jul-26-19 21:20		Jul-26-19 21:43					
	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				

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-001	Date Collected:	07.17.19 10.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**121**	5.00	mg/kg	07.22.19 23.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 11.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 11.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 11.59	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 11.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-001	Date Collected:	07.17.19 10.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 22.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.24.19 22.55	
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.24.19 22.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-002	Date Collected:	07.17.19 10.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.7**	5.02	mg/kg	07.23.19 09.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 13.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 13.11	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 13.11	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-002	Date Collected:	07.17.19 10.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.24.19 23.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.24.19 23.15	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.24.19 23.15	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-003	Date Collected:	07.17.19 11.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.23.19 09.34	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 13.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 13.35	
o-Terphenyl	84-15-1	68	%	70-135	07.27.19 13.35	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-003	Date Collected:	07.17.19 11.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 23.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.24.19 23.35	
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 23.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-004	Date Collected:	07.17.19 11.35	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.0**	4.97	mg/kg	07.23.19 09.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 13.59	
o-Terphenyl	84-15-1	66	%	70-135	07.27.19 13.59	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-004	Date Collected:	07.17.19 11.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 23.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 23.55	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.24.19 23.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-005	Date Collected:	07.17.19 11.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**222**	5.00	mg/kg	07.23.19 08.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 14.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 14.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.27.19 14.23	
o-Terphenyl	84-15-1	65	%	70-135	07.27.19 14.23	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-005	Date Collected:	07.17.19 11.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 00.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.25.19 00.15	
1,4-Difluorobenzene	540-36-3	111	%	70-130	07.25.19 00.15	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-006	Date Collected:	07.17.19 12.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.9**	5.05	mg/kg	07.23.19 09.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 14.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 14.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.27.19 14.47	
o-Terphenyl	84-15-1	65	%	70-135	07.27.19 14.47	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-006	Date Collected:	07.17.19 12.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.25.19 00.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	07.25.19 00.35	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.25.19 00.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH04** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-007 Date Collected: 07.17.19 12.40 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.0**	49.7	mg/kg	07.23.19 08.51		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 15.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 15.11	
o-Terphenyl	84-15-1	68	%	70-135	07.27.19 15.11	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-007	Date Collected:	07.17.19 12.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 00.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	156	%	70-130	07.25.19 00.55	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.25.19 00.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-008	Date Collected:	07.17.19 13.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.48**	5.04	mg/kg	07.23.19 09.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.27.19 15.35	
o-Terphenyl	84-15-1	67	%	70-135	07.27.19 15.35	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-008	Date Collected:	07.17.19 13.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 01.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	07.25.19 01.16	
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.25.19 01.16	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH05** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-009 Date Collected: 07.17.19 13.20 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.23.19 15.38	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 15.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.27.19 15.59	
o-Terphenyl	84-15-1	66	%	70-135	07.27.19 15.59	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-009	Date Collected:	07.17.19 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.25.19 01.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	154	%	70-130	07.25.19 01.36	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.25.19 01.36	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-010	Date Collected:	07.17.19 13.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**34.3**	4.96	mg/kg	07.23.19 09.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 16.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 16.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 16.23	
o-Terphenyl	84-15-1	73	%	70-135	07.27.19 16.23	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-010	Date Collected:	07.17.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 01.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	145	%	70-130	07.25.19 01.56	**
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.25.19 01.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-011	Date Collected:	07.17.19 14.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.3**	5.01	mg/kg	07.23.19 10.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 17.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 17.11	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 17.11	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-011	Date Collected:	07.17.19 14.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 17.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.25.19 17.38	
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.25.19 17.38	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-012	Date Collected:	07.17.19 14.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.64**	4.98	mg/kg	07.23.19 10.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 17.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 17.35	
o-Terphenyl	84-15-1	72	%	70-135	07.27.19 17.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-012	Date Collected:	07.17.19 14.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 17.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.25.19 17.59	
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.25.19 17.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH07** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-013 Date Collected: 07.17.19 14.40 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.5**	5.00	mg/kg	07.23.19 10.18		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 17.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 17.58	
o-Terphenyl	84-15-1	72	%	70-135	07.27.19 17.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-013	Date Collected:	07.17.19 14.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 18.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.25.19 18.19	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.25.19 18.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-014	Date Collected:	07.17.19 15.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.23.19 10.24	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 18.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 18.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 18.22	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 18.22	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-014	Date Collected:	07.17.19 15.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 18.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 18.39	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.25.19 18.39	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-015	Date Collected:	07.17.19 15.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.9**	5.00	mg/kg	07.23.19 15.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.27.19 18.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	07.27.19 18.46	
o-Terphenyl	84-15-1	63	%	70-135	07.27.19 18.46	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-015	Date Collected:	07.17.19 15.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 18.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.25.19 18.59	
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.25.19 18.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-016	Date Collected:	07.17.19 15.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.1**	5.03	mg/kg	07.23.19 15.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 19.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 19.10	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 19.10	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-016	Date Collected:	07.17.19 15.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 19.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.25.19 19.19	
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.25.19 19.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-017	Date Collected:	07.17.19 16.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.4**	5.00	mg/kg	07.23.19 10.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 19.34	
o-Terphenyl	84-15-1	69	%	70-135	07.27.19 19.34	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-017	Date Collected:	07.17.19 16.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 19.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.25.19 19.39	
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 19.39	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-018	Date Collected:	07.17.19 16.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2600**	49.8	mg/kg	07.23.19 10.58		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 19.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 19.57	
o-Terphenyl	84-15-1	69	%	70-135	07.27.19 19.57	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-018	Date Collected:	07.17.19 16.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.25.19 19.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 19.59	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.25.19 19.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-019	Date Collected:	07.17.19 16.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.23.19 11.03	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 20.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 20.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 20.21	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 20.21	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-019	Date Collected:	07.17.19 16.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 20.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.25.19 20.19	
1,4-Difluorobenzene	540-36-3	84	%	70-130	07.25.19 20.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-020	Date Collected:	07.17.19 17.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.9**	4.95	mg/kg	07.23.19 15.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.27.19 20.45	
o-Terphenyl	84-15-1	67	%	70-135	07.27.19 20.45	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-020	Date Collected:	07.17.19 17.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 23.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.25.19 23.58	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.25.19 23.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-021	Date Collected:	07.18.19 09.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 11.25	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 18.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.26.19 18.56	
o-Terphenyl	84-15-1	71	%	70-135	07.26.19 18.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-021	Date Collected:	07.18.19 09.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 00.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 00.18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.26.19 00.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-022	Date Collected:	07.18.19 09.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 15.52	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 19.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.26.19 19.20	
o-Terphenyl	84-15-1	84	%	70-135	07.26.19 19.20	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-022	Date Collected:	07.18.19 09.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 10.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.26.19 10.36	
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 10.36	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-023	Date Collected:	07.18.19 10.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 11.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.26.19 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.26.19 19.44	
o-Terphenyl	84-15-1	72	%	70-135	07.26.19 19.44	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-023	Date Collected:	07.18.19 10.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 00.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 00.58	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.26.19 00.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-024	Date Collected:	07.18.19 10.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.23.19 15.57	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.26.19 20.08	
o-Terphenyl	84-15-1	81	%	70-135	07.26.19 20.08	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-024	Date Collected:	07.18.19 10.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 01.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	07.26.19 01.18	
4-Bromofluorobenzene	460-00-4	122	%	70-130	07.26.19 01.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-025	Date Collected:	07.18.19 11.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	07.23.19 11.51	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 20.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.26.19 20.32	
o-Terphenyl	84-15-1	76	%	70-135	07.26.19 20.32	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-025	Date Collected:	07.18.19 11.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 01.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 01.38	
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.26.19 01.38	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-026	Date Collected:	07.18.19 12.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	07.23.19 16.03	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 20.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	07.26.19 20.56	
o-Terphenyl	84-15-1	76	%	70-135	07.26.19 20.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-026	Date Collected:	07.18.19 12.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 01.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	07.26.19 01.58	
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.26.19 01.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-027	Date Collected:	07.18.19 12.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.5**	5.03	mg/kg	07.23.19 12.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 21.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 21.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.26.19 21.20	
o-Terphenyl	84-15-1	70	%	70-135	07.26.19 21.20	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-027	Date Collected:	07.18.19 12.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.26.19 02.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.26.19 02.18	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.26.19 02.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-028	Date Collected:	07.18.19 13.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	07.23.19 16.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 21.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 21.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.26.19 21.43	
o-Terphenyl	84-15-1	77	%	70-135	07.26.19 21.43	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-028	Date Collected:	07.18.19 13.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.26.19 02.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 02.38	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.26.19 02.38	

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Solid — Date Prep: 07.22.19
MB Sample Id: 7682543-1-BLK — LCS Sample Id: 7682543-1-BKS — LCSD Sample Id: 7682543-1-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	244	98	243	97	90-110	0	20	mg/kg	07.22.19 23:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682574-1-BLK — LCS Sample Id: 7682574-1-BKS — LCSD Sample Id: 7682574-1-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	242	97	242	97	90-110	0	20	mg/kg	07.23.19 10:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631513-001 — MS Sample Id: 631513-001 S — MSD Sample Id: 631513-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	121	250	367	98	368	99	90-110	0	20	mg/kg	07.22.19 23:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631513-005 — MS Sample Id: 631513-005 S — MSD Sample Id: 631513-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	222	250	470	99	470	99	90-110	0	20	mg/kg	07.23.19 08:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631513-017 — MS Sample Id: 631513-017 S — MSD Sample Id: 631513-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.4	250	269	103	265	101	90-110	1	20	mg/kg	07.23.19 10:42	

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096267 Matrix: Soil Date Prep: 07.23.19
Parent Sample Id: 631513-025 MS Sample Id: 631513-025 S MSD Sample Id: 631513-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.896	251	253	100	251	100	90-110	1	20	mg/kg	07.23.19 11:57	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096711 Matrix: Solid Date Prep: 07.26.19
MB Sample Id: 7682976-1-BLK LCS Sample Id: 7682976-1-BKS LCSD Sample Id: 7682976-1-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	846	85	70-135	7	20	mg/kg	07.26.19 12:06	
Diesel Range Organics (DRO)	<8.13	1000	1050	105	988	99	70-135	6	20	mg/kg	07.26.19 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		89		76		70-135	%	07.26.19 12:06
o-Terphenyl	82		103		90		70-135	%	07.26.19 12:06

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096729 Matrix: Solid Date Prep: 07.27.19
MB Sample Id: 7682994-1-BLK LCS Sample Id: 7682994-1-BKS LCSD Sample Id: 7682994-1-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	911	91	70-135	10	20	mg/kg	07.27.19 11:11	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	975	98	70-135	8	20	mg/kg	07.27.19 11:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		84		78		70-135	%	07.27.19 11:11
o-Terphenyl	64	**	80		77		70-135	%	07.27.19 11:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096711 Matrix: Soil Date Prep: 07.26.19
Parent Sample Id: 631327-020 MS Sample Id: 631327-020 S MSD Sample Id: 631327-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	10.1	997	906	90	930	92	70-135	3	20	mg/kg	07.26.19 13:18	
Diesel Range Organics (DRO)	<8.10	997	1030	103	1050	105	70-135	2	20	mg/kg	07.26.19 13:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		80		70-135	%	07.26.19 13:18
o-Terphenyl	82		82		70-135	%	07.26.19 13:18

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096729 — Matrix: Soil — Date Prep: 07.27.19
Parent Sample Id: 631513-001 — MS Sample Id: 631513-001 S — MSD Sample Id: 631513-001 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	857	86	889	89	70-135	4	20	mg/kg	07.27.19 12:23	
Diesel Range Organics (DRO)	13.5	997	891	88	968	96	70-135	8	20	mg/kg	07.27.19 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	75		80		70-135	%	07.27.19 12:23
o-Terphenyl	71		78		70-135	%	07.27.19 12:23

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096597 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682603-1-BLK — LCS Sample Id: 7682603-1-BKS — LCSD Sample Id: 7682603-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000540	0.100	0.108	108	0.117	117	70-130	8	35	mg/kg	07.24.19 20:55	
Toluene	0.000590	0.100	0.0931	93	0.0993	99	70-130	6	35	mg/kg	07.24.19 20:55	
Ethylbenzene	<0.000565	0.100	0.0815	82	0.0869	87	70-130	6	35	mg/kg	07.24.19 20:55	
m,p-Xylenes	<0.00101	0.200	0.167	84	0.178	89	70-130	6	35	mg/kg	07.24.19 20:55	
o-Xylene	0.000390	0.100	0.0892	89	0.0942	94	70-130	5	35	mg/kg	07.24.19 20:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		114		115		70-130	%	07.24.19 20:55
4-Bromofluorobenzene	111		109		105		70-130	%	07.24.19 20:55

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096598 — Matrix: Solid — Date Prep: 07.24.19
MB Sample Id: 7682689-1-BLK — LCS Sample Id: 7682689-1-BKS — LCSD Sample Id: 7682689-1-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	0.0979	98	0.107	107	70-130	9	35	mg/kg	07.25.19 21:58	
Toluene	0.000510	0.100	0.0934	93	0.102	102	70-130	9	35	mg/kg	07.25.19 21:58	
Ethylbenzene	<0.000565	0.100	0.0937	94	0.103	103	70-130	9	35	mg/kg	07.25.19 21:58	
m,p-Xylenes	<0.00101	0.200	0.188	94	0.207	104	70-130	10	35	mg/kg	07.25.19 21:58	
o-Xylene	<0.000344	0.100	0.0994	99	0.110	110	70-130	10	35	mg/kg	07.25.19 21:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		99		100		70-130	%	07.25.19 21:58
4-Bromofluorobenzene	106		108		109		70-130	%	07.25.19 21:58

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

QC Summary 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3096597
Matrix: Soil
Date Prep: 07.23.19
Parent Sample Id: 631513-001
MS Sample Id: 631513-001 S
MSD Sample Id: 631513-001 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	0.0904	90	0.0952	96	70-130	5	35	mg/kg	07.24.19 21:35	
Toluene	<0.000456	0.100	0.0795	80	0.0806	81	70-130	1	35	mg/kg	07.24.19 21:35	
Ethylbenzene	<0.00200	0.100	0.0709	71	0.0712	72	70-130	0	35	mg/kg	07.24.19 21:35	
m,p-Xylenes	<0.00101	0.200	0.146	73	0.146	73	70-130	0	35	mg/kg	07.24.19 21:35	
o-Xylene	<0.00200	0.100	0.0773	77	0.0762	77	70-130	1	35	mg/kg	07.24.19 21:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		115		70-130	%	07.24.19 21:35
4-Bromofluorobenzene	112		108		70-130	%	07.24.19 21:35

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5030B
Seq Number: 3096598
Matrix: Soil
Date Prep: 07.24.19
Parent Sample Id: 631513-020
MS Sample Id: 631513-020 S
MSD Sample Id: 631513-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0887	90	0.0831	83	70-130	7	35	mg/kg	07.25.19 22:38	
Toluene	<0.00198	0.0990	0.0813	82	0.0769	77	70-130	6	35	mg/kg	07.25.19 22:38	
Ethylbenzene	<0.00198	0.0990	0.0805	81	0.0766	77	70-130	5	35	mg/kg	07.25.19 22:38	
m,p-Xylenes	<0.00100	0.198	0.161	81	0.154	77	70-130	4	35	mg/kg	07.25.19 22:38	
o-Xylene	<0.00198	0.0990	0.0865	87	0.0827	83	70-130	4	35	mg/kg	07.25.19 22:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	07.25.19 22:38
4-Bromofluorobenzene	111		114		70-130	%	07.25.19 22:38

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

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

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

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

Page 635 of 1119

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 Carlsbad, 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: 631513

Page 1 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	ET Environmental, Inc.	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:	SLe@Heav.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:	JRU DI I	Turn Around	
Project Number:	2RP-2440 13046	Routine ☑	Pres. Code
Project Location:		Rush:	
Sampler's Name:	Spencer L.	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.6	Thermometer ID	TUH007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chloride (EPA 300)
	PH01	S	7.17.19	1040	2'	1			
	PH01A			1055	4'				
	PH02			1105	1'				
	PH02A			1135	4'				
	PH03			1145	1'				
	PH03A			1210	4'				
	PH04			1240	1'				
	PH04A			1310	4'				
	PH05			1320	1'				
	PH05A			1350	4'				

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U
1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		820 7.19.19	2		
			4		
			6		

Revised Date 082818 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 71 of 83

Page 636 of 1119

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 Crailsbad, 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: 631513

Page 2 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	Company Name:	LTO
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:	jlott@ltenv.com

Work Order Comments

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

Project Name:	JLV DI 2	Turn Around	
Project Number:	2RP 2440 / 3046	Routine: ☑	
Project Location:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.6	Thermometer ID	TNH03
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chlorides (EPA 300)
	PH05	S	7.17.14	1400	1'	1			
	PH06A			1430	4'				
	PH07			1440	1'				
	PH07A			1510	4'				
	PH08			1520	1'				
	PH08A			1550	4'				
	PH09			1610	1'				
	PH09A			1630	4'				
	PH10			1650	1'				
	PH10A	↓	↓	1710	4'	↓	↓	↓	↓

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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		830 7.19.14	3		
			4		
			6		

Revised Date 032815 Rev. 2015.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 72 of 83

Page 637 of 1119

Chain of Custody

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

Work Order No: U3(573

Page 3 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	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:	slop@lenv.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:	JAU DI 2	Turn Around	
Project Number:	200-2440/3046	Routine:	☑
Project Location		Rush:	
Sampler's Name:	Spence Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5.6	Thermometer ID	TPM007	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:	5	

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chlorides (EPA 300)	Sample Comments
	PH11	S	7-18-19	910	1'	1				
	PH11A			950	4'					
	PH12			1010	1'					
	PH12A			1050	4'					
	PH13			1110	1'					
	PH13A			1200	4'					
	PH14			1245	1'					
	PH14A	↓	↓	1300	4'	↓				
					Spence Lo					

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
		830 7-19-19	2		
			4		
			6		

Revised Date 032818 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 73 of 83

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-001	S	PH01	07.17.2019 10:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-001	S	PH01	07.17.2019 10:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-001	S	PH01	07.17.2019 10:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-002	S	PH01A	07.17.2019 10:55	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-003	S	PH02	07.17.2019 11:05	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-004	S	PH02A	07.17.2019 11:35	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-005	S	PH03	07.17.2019 11:45	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-007	S	PH04	07.17.2019 12:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-008	S	PH04A	07.17.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-008	S	PH04A	07.17.2019 13:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-009	S	PH05	07.17.2019 13:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-010	S	PH05A	07.17.2019 13:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-011	S	PH06	07.17.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-011	S	PH06	07.17.2019 14:00	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-012	S	PH06A	07.17.2019 14:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-013	S	PH07	07.17.2019 14:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-014	S	PH07A	07.17.2019 15:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-015	S	PH08	07.17.2019 15:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-015	S	PH08	07.17.2019 15:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-016	S	PH08A	07.17.2019 15:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-017	S	PH09	07.17.2019 16:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-017	S	PH09	07.17.2019 16:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number : 43847

Date/Time: 07.19.2019 11:03
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

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
631513-017	S	PH09	07.17.2019 16:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-018	S	PH09A	07.17.2019 16:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-018	S	PH09A	07.17.2019 16:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-018	S	PH09A	07.17.2019 16:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-019	S	PH10	07.17.2019 16:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-019	S	PH10	07.17.2019 16:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-019	S	PH10	07.17.2019 16:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-020	S	PH10A	07.17.2019 17:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-021	S	PH11	07.18.2019 09:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-022	S	PH11A	07.18.2019 09:50	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-023	S	PH12	07.18.2019 10:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-024	S	PH12A	07.18.2019 10:50	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-024	S	PH12A	07.18.2019 10:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-025	S	PH13	07.18.2019 11:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-025	S	PH13	07.18.2019 11:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-026	S	PH13A	07.18.2019 12:00	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-026	S	PH13A	07.18.2019 12:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-026	S	PH13A	07.18.2019 12:00	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-027	S	PH14	07.18.2019 12:15	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-027	S	PH14	07.18.2019 12:15	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-028	S	PH14A	07.18.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Date Relinquished: 

Elizabeth McClellan

07.19.2019

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-001	S	PH01	07.17.2019 10:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-001	S	PH01	07.17.2019 10:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-001	S	PH01	07.17.2019 10:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-002	S	PH01A	07.17.2019 10:55	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-002	S	PH01A	07.17.2019 10:55	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-003	S	PH02	07.17.2019 11:05	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-003	S	PH02	07.17.2019 11:05	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-004	S	PH02A	07.17.2019 11:35	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-004	S	PH02A	07.17.2019 11:35	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-005	S	PH03	07.17.2019 11:45	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-005	S	PH03	07.17.2019 11:45	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-007	S	PH04	07.17.2019 12:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-007	S	PH04	07.17.2019 12:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-008	S	PH04A	07.17.2019 13:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-009	S	PH05	07.17.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-009	S	PH05	07.17.2019 13:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-010	S	PH05A	07.17.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-010	S	PH05A	07.17.2019 13:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-011	S	PH06	07.17.2019 14:00	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-012	S	PH06A	07.17.2019 14:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-013	S	PH07	07.17.2019 14:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-014	S	PH07A	07.17.2019 15:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-015	S	PH08	07.17.2019 15:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-016	S	PH08A	07.17.2019 15:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-017	S	PH09	07.17.2019 16:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-017	S	PH09	07.17.2019 16:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number : 43848

Date/Time: 07.19.2019 11:09
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer
Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street
Lab# To: **Midland**
Air Bill No.:
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-017	S	PH09	07.17.2019 16:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-018	S	PH09A	07.17.2019 16:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-018	S	PH09A	07.17.2019 16:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-018	S	PH09A	07.17.2019 16:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-019	S	PH10	07.17.2019 16:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-019	S	PH10	07.17.2019 16:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-019	S	PH10	07.17.2019 16:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-020	S	PH10A	07.17.2019 17:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-021	S	PH11	07.18.2019 09:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-022	S	PH11A	07.18.2019 09:50	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-023	S	PH12	07.18.2019 10:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-024	S	PH12A	07.18.2019 10:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-025	S	PH13	07.18.2019 11:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-026	S	PH13A	07.18.2019 12:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-026	S	PH13A	07.18.2019 12:00	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-026	S	PH13A	07.18.2019 12:00	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-027	S	PH14	07.18.2019 12:15	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-028	S	PH14A	07.18.2019 13:00	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-028	S	PH14A	07.18.2019 13:00	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Date Relinquished: 

Elizabeth McClellan

07.19.2019

Date Received:

Cooler Temperature:

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 43847

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

Sent By: Elizabeth McClellan **Date Sent:** 07/19/2019 11:03 AM

Received By: **Date Received:**

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: _____ Date: _____
Katie Lowe

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/19/2019 08:30:00 AM

Work Order #: 631513

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	5.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#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)?	**Yes**	Subbed to Xenco 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: 07/19/2019

Checklist reviewed by: Jessica Kramer Date: 07/22/2019

Jessica Kramer

Analytical Report 631513

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI 1

2RP-2440 13046

29-JUL-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

29-JUL-19

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

Reference: XENCO Report No(s): **631513**
JRU DI 1
Project Address: Delaware Basin

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) 631513. 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. 631513 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 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07-17-19 10:40	2 ft	631513-001
PH01A	S	07-17-19 10:55	4 ft	631513-002
PH02	S	07-17-19 11:05	1 ft	631513-003
PH02A	S	07-17-19 11:35	4 ft	631513-004
PH03	S	07-17-19 11:45	1 ft	631513-005
PH03A	S	07-17-19 12:30	4 ft	631513-006
PH04	S	07-17-19 12:40	1 ft	631513-007
PH04A	S	07-17-19 13:10	4 ft	631513-008
PH05	S	07-17-19 13:20	1 ft	631513-009
PH05A	S	07-17-19 13:50	4 ft	631513-010
PH06	S	07-17-19 14:00	1 ft	631513-011
PH06A	S	07-17-19 14:30	4 ft	631513-012
PH07	S	07-17-19 14:40	1 ft	631513-013
PH07A	S	07-17-19 15:10	4 ft	631513-014
PH08	S	07-17-19 15:20	1 ft	631513-015
PH08A	S	07-17-19 15:50	4 ft	631513-016
PH09	S	07-17-19 16:10	1 ft	631513-017
PH09A	S	07-17-19 16:30	4 ft	631513-018
PH10	S	07-17-19 16:50	1 ft	631513-019
PH10A	S	07-17-19 17:20	4 ft	631513-020
PH11	S	07-18-19 09:10	1 ft	631513-021
PH11A	S	07-18-19 09:50	4 ft	631513-022
PH12	S	07-18-19 10:10	1 ft	631513-023
PH12A	S	07-18-19 10:50	4 ft	631513-024
PH13	S	07-18-19 11:10	1 ft	631513-025
PH13A	S	07-18-19 12:00	4 ft	631513-026
PH14	S	07-18-19 12:15	1 ft	631513-027
PH14A	S	07-18-19 13:00	4 ft	631513-028

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1

Project ID: *2RP-2440 13046*
Work Order Number(s): *631513*

Report Date: *29-JUL-19*
Date Received: *07/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096597 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; data confirmed by re-analysis.
Samples affected are: 631513-007,631513-010,631513-009.

Batch: LBA-3096598 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3096729 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682994-1-BLK,631513-004,631513-005,631513-006,631513-020,631513-008,631513-009,631513-015,631513-017,631513-018,631513-003,631513-007.

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-001		631513-002		631513-003		631513-004		631513-005		631513-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	2- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 10:40		Jul-17-19 10:55		Jul-17-19 11:05		Jul-17-19 11:35		Jul-17-19 11:45		Jul-17-19 12:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-24-19 22:55		Jul-24-19 23:15		Jul-24-19 23:35		Jul-24-19 23:55		Jul-25-19 00:15		Jul-25-19 00:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398	<0.00403	0.00403
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30	
	Analyzed:	Jul-22-19 23:46		Jul-23-19 09:28		Jul-23-19 09:34		Jul-23-19 09:40		Jul-23-19 08:32		Jul-23-19 09:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		121	5.00	33.7	5.02	<4.96	4.96	12.0	4.97	222	5.00	26.9	5.05
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 11:59		Jul-27-19 13:11		Jul-27-19 13:35		Jul-27-19 13:59		Jul-27-19 14:23		Jul-27-19 14:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-007		631513-008		631513-009		631513-010		631513-011		631513-012	
	Field Id:	PH04		PH04A		PH05		PH05A		PH06		PH06A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 12:40		Jul-17-19 13:10		Jul-17-19 13:20		Jul-17-19 13:50		Jul-17-19 14:00		Jul-17-19 14:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-25-19 00:55		Jul-25-19 01:16		Jul-25-19 01:36		Jul-25-19 01:56		Jul-25-19 17:38		Jul-25-19 17:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00403	0.00403	<0.00399	0.00399	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30	
	Analyzed:	Jul-23-19 08:51		Jul-23-19 09:53		Jul-23-19 15:38		Jul-23-19 09:59		Jul-23-19 10:05		Jul-23-19 10:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		86.0	49.7	7.48	5.04	<5.00	5.00	34.3	4.96	19.3	5.01	6.64	4.98
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 15:11		Jul-27-19 15:35		Jul-27-19 15:59		Jul-27-19 16:23		Jul-27-19 17:11		Jul-27-19 17:35	
	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	<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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-013		631513-014		631513-015		631513-016		631513-017		631513-018	
	Field Id:	PH07		PH07A		PH08		PH08A		PH09		PH09A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 14:40		Jul-17-19 15:10		Jul-17-19 15:20		Jul-17-19 15:50		Jul-17-19 16:10		Jul-17-19 16:30	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12		Jul-23-19 14:12	
	Analyzed:	Jul-25-19 18:19		Jul-25-19 18:39		Jul-25-19 18:59		Jul-25-19 19:19		Jul-25-19 19:39		Jul-25-19 19:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397	<0.00399	0.00399	<0.00398	0.00398	<0.00399	0.00399	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-22-19 16:30		Jul-22-19 16:30		Jul-22-19 16:30		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10	
	Analyzed:	Jul-23-19 10:18		Jul-23-19 10:24		Jul-23-19 15:46		Jul-23-19 15:41		Jul-23-19 10:37		Jul-23-19 10:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		23.5	5.00	<5.00	5.00	44.9	5.00	16.1	5.03	12.4	5.00	2600	49.8
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00		Jul-27-19 09:00	
	Analyzed:	Jul-27-19 17:58		Jul-27-19 18:22		Jul-27-19 18:46		Jul-27-19 19:10		Jul-27-19 19:34		Jul-27-19 19:57	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631513-019		631513-020		631513-021		631513-022		631513-023		631513-024	
	Field Id:	PH10		PH10A		PH11		PH11A		PH12		PH12A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-17-19 16:50		Jul-17-19 17:20		Jul-18-19 09:10		Jul-18-19 09:50		Jul-18-19 10:10		Jul-18-19 10:50	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-23-19 14:12		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35	
	Analyzed:	Jul-25-19 20:19		Jul-25-19 23:58		Jul-26-19 00:18		Jul-26-19 10:36		Jul-26-19 00:58		Jul-26-19 01:18	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10	
	Analyzed:	Jul-23-19 11:03		Jul-23-19 15:47		Jul-23-19 11:25		Jul-23-19 15:52		Jul-23-19 11:35		Jul-23-19 15:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	14.9	4.95	<5.05	5.05	<5.05	5.05	<5.05	5.05	<4.95	4.95
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-27-19 09:00		Jul-27-19 09:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00	
	Analyzed:	Jul-27-19 20:21		Jul-27-19 20:45		Jul-26-19 18:56		Jul-26-19 19:20		Jul-26-19 19:44		Jul-26-19 20:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631513

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 2RP-2440 13046
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	631513-025		631513-026		631513-027		631513-028							
	Field Id:	PH13		PH13A		PH14		PH14A							
	Depth:	1- ft		4- ft		1- ft		4- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	Jul-18-19 11:10		Jul-18-19 12:00		Jul-18-19 12:15		Jul-18-19 13:00							
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35							
	Analyzed:	Jul-26-19 01:38		Jul-26-19 01:58		Jul-26-19 02:18		Jul-26-19 02:38							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
Toluene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402	<0.00401	0.00401	<0.00399	0.00399						
o-Xylene		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
Total BTEX		<0.00201	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200						
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10							
	Analyzed:	Jul-23-19 11:51		Jul-23-19 16:03		Jul-23-19 12:08		Jul-23-19 16:08							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		<5.02	5.02	<4.99	4.99	14.5	5.03	<4.97	4.97						
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00							
	Analyzed:	Jul-26-19 20:32		Jul-26-19 20:56		Jul-26-19 21:20		Jul-26-19 21:43							
	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						

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-001	Date Collected:	07.17.19 10.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**121**	5.00	mg/kg	07.22.19 23.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 11.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 11.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 11.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 11.59	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 11.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-001	Date Collected:	07.17.19 10.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 22.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.24.19 22.55	
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.24.19 22.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-002	Date Collected:	07.17.19 10.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**33.7**	5.02	mg/kg	07.23.19 09.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 13.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 13.11	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 13.11	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-002	Date Collected:	07.17.19 10.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.24.19 23.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 23.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.24.19 23.15	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.24.19 23.15	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-003	Date Collected:	07.17.19 11.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.23.19 09.34	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 13.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 13.35	
o-Terphenyl	84-15-1	68	%	70-135	07.27.19 13.35	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-003	Date Collected:	07.17.19 11.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 23.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.24.19 23.35	
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 23.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH02A** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-004 Date Collected: 07.17.19 11.35 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.0**	4.97	mg/kg	07.23.19 09.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 13.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 13.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 13.59	
o-Terphenyl	84-15-1	66	%	70-135	07.27.19 13.59	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-004	Date Collected:	07.17.19 11.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 23.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 23.55	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.24.19 23.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-005	Date Collected:	07.17.19 11.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**222**	5.00	mg/kg	07.23.19 08.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 14.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 14.23	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 14.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.27.19 14.23	
o-Terphenyl	84-15-1	65	%	70-135	07.27.19 14.23	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-005	Date Collected:	07.17.19 11.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 00.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.25.19 00.15	
1,4-Difluorobenzene	540-36-3	111	%	70-130	07.25.19 00.15	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-006	Date Collected:	07.17.19 12.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.9**	5.05	mg/kg	07.23.19 09.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 14.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 14.47	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 14.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.27.19 14.47	
o-Terphenyl	84-15-1	65	%	70-135	07.27.19 14.47	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-006	Date Collected:	07.17.19 12.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.25.19 00.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.25.19 00.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	07.25.19 00.35	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.25.19 00.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH04** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-007 Date Collected: 07.17.19 12.40 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.0**	49.7	mg/kg	07.23.19 08.51		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 15.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 15.11	
o-Terphenyl	84-15-1	68	%	70-135	07.27.19 15.11	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-007	Date Collected:	07.17.19 12.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 00.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 00.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	156	%	70-130	07.25.19 00.55	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.25.19 00.55	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH04A** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-008 Date Collected: 07.17.19 13.10 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.48**	5.04	mg/kg	07.23.19 09.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.27.19 15.35	
o-Terphenyl	84-15-1	67	%	70-135	07.27.19 15.35	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-008	Date Collected:	07.17.19 13.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 01.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 01.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	07.25.19 01.16	
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.25.19 01.16	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-009	Date Collected:	07.17.19 13.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.23.19 15.38	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 15.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 15.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 15.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.27.19 15.59	
o-Terphenyl	84-15-1	66	%	70-135	07.27.19 15.59	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-009	Date Collected:	07.17.19 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.25.19 01.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.25.19 01.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	154	%	70-130	07.25.19 01.36	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.25.19 01.36	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-010	Date Collected:	07.17.19 13.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**34.3**	4.96	mg/kg	07.23.19 09.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 16.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 16.23	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 16.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 16.23	
o-Terphenyl	84-15-1	73	%	70-135	07.27.19 16.23	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-010	Date Collected:	07.17.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 01.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 01.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	145	%	70-130	07.25.19 01.56	**
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.25.19 01.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH06** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-011 Date Collected: 07.17.19 14.00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.3**	5.01	mg/kg	07.23.19 10.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 17.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 17.11	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 17.11	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-011	Date Collected:	07.17.19 14.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 17.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 17.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.25.19 17.38	
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.25.19 17.38	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-012	Date Collected:	07.17.19 14.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.64**	4.98	mg/kg	07.23.19 10.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 17.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 17.35	
o-Terphenyl	84-15-1	72	%	70-135	07.27.19 17.35	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-012	Date Collected:	07.17.19 14.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 17.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 17.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.25.19 17.59	
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.25.19 17.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH07** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-013 Date Collected: 07.17.19 14.40 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.22.19 16.30 Basis: Wet Weight
Seq Number: 3096168 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.5**	5.00	mg/kg	07.23.19 10.18		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 17.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 17.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 17.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 17.58	
o-Terphenyl	84-15-1	72	%	70-135	07.27.19 17.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-013	Date Collected:	07.17.19 14.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 18.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 18.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.25.19 18.19	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.25.19 18.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-014	Date Collected:	07.17.19 15.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.23.19 10.24	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 18.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 18.22	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 18.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.27.19 18.22	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 18.22	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-014	Date Collected:	07.17.19 15.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 18.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 18.39	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.25.19 18.39	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-015	Date Collected:	07.17.19 15.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 16.30	Basis:	Wet Weight
Seq Number:	3096168			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.9**	5.00	mg/kg	07.23.19 15.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.27.19 18.46	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.27.19 18.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	07.27.19 18.46	
o-Terphenyl	84-15-1	63	%	70-135	07.27.19 18.46	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-015	Date Collected:	07.17.19 15.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 18.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 18.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.25.19 18.59	
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.25.19 18.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-016	Date Collected:	07.17.19 15.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.1**	5.03	mg/kg	07.23.19 15.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 19.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.10	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 19.10	
o-Terphenyl	84-15-1	70	%	70-135	07.27.19 19.10	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-016	Date Collected:	07.17.19 15.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 19.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 19.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.25.19 19.19	
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.25.19 19.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH09** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-017 Date Collected: 07.17.19 16.10 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.23.19 10.10 Basis: Wet Weight
Seq Number: 3096267 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.4**	5.00	mg/kg	07.23.19 10.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.34	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 19.34	
o-Terphenyl	84-15-1	69	%	70-135	07.27.19 19.34	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-017	Date Collected:	07.17.19 16.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 19.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 19.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.25.19 19.39	
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 19.39	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-018	Date Collected:	07.17.19 16.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2600**	49.8	mg/kg	07.23.19 10.58		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 19.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 19.57	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 19.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.27.19 19.57	
o-Terphenyl	84-15-1	69	%	70-135	07.27.19 19.57	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-018	Date Collected:	07.17.19 16.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.25.19 19.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 19.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.25.19 19.59	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.25.19 19.59	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH10** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-019 Date Collected: 07.17.19 16.50 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.23.19 10.10 Basis: Wet Weight
Seq Number: 3096267 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.23.19 11.03	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.27.19 09.00 Basis: Wet Weight
Seq Number: 3096729 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	07.27.19 20.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 20.21	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 20.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.27.19 20.21	
o-Terphenyl	84-15-1	71	%	70-135	07.27.19 20.21	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-019	Date Collected:	07.17.19 16.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.23.19 14.12	Basis:	Wet Weight
Seq Number:	3096597			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 20.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 20.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.25.19 20.19	
1,4-Difluorobenzene	540-36-3	84	%	70-130	07.25.19 20.19	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-020	Date Collected:	07.17.19 17.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.9**	4.95	mg/kg	07.23.19 15.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.19 09.00	Basis:	Wet Weight
Seq Number:	3096729			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	07.27.19 20.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.27.19 20.45	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.27.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.27.19 20.45	
o-Terphenyl	84-15-1	67	%	70-135	07.27.19 20.45	**

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-020	Date Collected:	07.17.19 17.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 23.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.25.19 23.58	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.25.19 23.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-021	Date Collected:	07.18.19 09.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 11.25	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 18.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 18.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.26.19 18.56	
o-Terphenyl	84-15-1	71	%	70-135	07.26.19 18.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-021	Date Collected:	07.18.19 09.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 00.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 00.18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.26.19 00.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-022	Date Collected:	07.18.19 09.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 15.52	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 19.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 19.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.26.19 19.20	
o-Terphenyl	84-15-1	84	%	70-135	07.26.19 19.20	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-022	Date Collected:	07.18.19 09.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 10.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 10.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.26.19 10.36	
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 10.36	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-023	Date Collected:	07.18.19 10.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	07.23.19 11.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.26.19 19.44	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.26.19 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.26.19 19.44	
o-Terphenyl	84-15-1	72	%	70-135	07.26.19 19.44	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-023	Date Collected:	07.18.19 10.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 00.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 00.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 00.58	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.26.19 00.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-024	Date Collected:	07.18.19 10.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.23.19 15.57	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.08	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.26.19 20.08	
o-Terphenyl	84-15-1	81	%	70-135	07.26.19 20.08	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-024	Date Collected:	07.18.19 10.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 01.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 01.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	07.26.19 01.18	
4-Bromofluorobenzene	460-00-4	122	%	70-130	07.26.19 01.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH13** Matrix: Soil Date Received:07.19.19 08.30
Lab Sample Id: 631513-025 Date Collected: 07.18.19 11.10 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.23.19 10.10 Basis: Wet Weight
Seq Number: 3096267 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	07.23.19 11.51	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.26.19 08.00 Basis: Wet Weight
Seq Number: 3096711 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	07.26.19 20.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.32	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.26.19 20.32	
o-Terphenyl	84-15-1	76	%	70-135	07.26.19 20.32	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-025	Date Collected:	07.18.19 11.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 01.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 01.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 01.38	
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.26.19 01.38	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-026	Date Collected:	07.18.19 12.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	07.23.19 16.03	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 20.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 20.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 20.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	07.26.19 20.56	
o-Terphenyl	84-15-1	76	%	70-135	07.26.19 20.56	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-026	Date Collected:	07.18.19 12.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 01.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 01.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	07.26.19 01.58	
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.26.19 01.58	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-027	Date Collected:	07.18.19 12.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.5**	5.03	mg/kg	07.23.19 12.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 21.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 21.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 21.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.26.19 21.20	
o-Terphenyl	84-15-1	70	%	70-135	07.26.19 21.20	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-027	Date Collected:	07.18.19 12.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.26.19 02.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 02.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.26.19 02.18	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.26.19 02.18	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-028	Date Collected:	07.18.19 13.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	07.23.19 16.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 21.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 21.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 21.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.26.19 21.43	
o-Terphenyl	84-15-1	77	%	70-135	07.26.19 21.43	

Certificate of Analytical Results 631513

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631513-028	Date Collected:	07.18.19 13.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.26.19 02.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 02.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.26.19 02.38	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.26.19 02.38	

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Solid — Date Prep: 07.22.19
MB Sample Id: 7682543-1-BLK — LCS Sample Id: 7682543-1-BKS — LCSD Sample Id: 7682543-1-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	244	98	243	97	90-110	0	20	mg/kg	07.22.19 23:33	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682574-1-BLK — LCS Sample Id: 7682574-1-BKS — LCSD Sample Id: 7682574-1-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	242	97	242	97	90-110	0	20	mg/kg	07.23.19 10:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631513-001 — MS Sample Id: 631513-001 S — MSD Sample Id: 631513-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	121	250	367	98	368	99	90-110	0	20	mg/kg	07.22.19 23:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096168 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631513-005 — MS Sample Id: 631513-005 S — MSD Sample Id: 631513-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	222	250	470	99	470	99	90-110	0	20	mg/kg	07.23.19 08:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631513-017 — MS Sample Id: 631513-017 S — MSD Sample Id: 631513-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.4	250	269	103	265	101	90-110	1	20	mg/kg	07.23.19 10:42	

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096267 Matrix: Soil Date Prep: 07.23.19
Parent Sample Id: 631513-025 MS Sample Id: 631513-025 S MSD Sample Id: 631513-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.896	251	253	100	251	100	90-110	1	20	mg/kg	07.23.19 11:57	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096711 Matrix: Solid Date Prep: 07.26.19
MB Sample Id: 7682976-1-BLK LCS Sample Id: 7682976-1-BKS LCSD Sample Id: 7682976-1-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	846	85	70-135	7	20	mg/kg	07.26.19 12:06	
Diesel Range Organics (DRO)	<8.13	1000	1050	105	988	99	70-135	6	20	mg/kg	07.26.19 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		89		76		70-135	%	07.26.19 12:06
o-Terphenyl	82		103		90		70-135	%	07.26.19 12:06

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096729 Matrix: Solid Date Prep: 07.27.19
MB Sample Id: 7682994-1-BLK LCS Sample Id: 7682994-1-BKS LCSD Sample Id: 7682994-1-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	911	91	70-135	10	20	mg/kg	07.27.19 11:11	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	975	98	70-135	8	20	mg/kg	07.27.19 11:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		84		78		70-135	%	07.27.19 11:11
o-Terphenyl	64	**	80		77		70-135	%	07.27.19 11:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096711 Matrix: Soil Date Prep: 07.26.19
Parent Sample Id: 631327-020 MS Sample Id: 631327-020 S MSD Sample Id: 631327-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	10.1	997	906	90	930	92	70-135	3	20	mg/kg	07.26.19 13:18	
Diesel Range Organics (DRO)	<8.10	997	1030	103	1050	105	70-135	2	20	mg/kg	07.26.19 13:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		80		70-135	%	07.26.19 13:18
o-Terphenyl	82		82		70-135	%	07.26.19 13:18

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 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096729 — Matrix: Soil — Date Prep: 07.27.19
Parent Sample Id: 631513-001 — MS Sample Id: 631513-001 S — MSD Sample Id: 631513-001 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	857	86	889	89	70-135	4	20	mg/kg	07.27.19 12:23	
Diesel Range Organics (DRO)	13.5	997	891	88	968	96	70-135	8	20	mg/kg	07.27.19 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	75		80		70-135	%	07.27.19 12:23
o-Terphenyl	71		78		70-135	%	07.27.19 12:23

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096597 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682603-1-BLK — LCS Sample Id: 7682603-1-BKS — LCSD Sample Id: 7682603-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000540	0.100	0.108	108	0.117	117	70-130	8	35	mg/kg	07.24.19 20:55	
Toluene	0.000590	0.100	0.0931	93	0.0993	99	70-130	6	35	mg/kg	07.24.19 20:55	
Ethylbenzene	<0.000565	0.100	0.0815	82	0.0869	87	70-130	6	35	mg/kg	07.24.19 20:55	
m,p-Xylenes	<0.00101	0.200	0.167	84	0.178	89	70-130	6	35	mg/kg	07.24.19 20:55	
o-Xylene	0.000390	0.100	0.0892	89	0.0942	94	70-130	5	35	mg/kg	07.24.19 20:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	118		114		115		70-130	%	07.24.19 20:55
4-Bromofluorobenzene	111		109		105		70-130	%	07.24.19 20:55

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096598 — Matrix: Solid — Date Prep: 07.24.19
MB Sample Id: 7682689-1-BLK — LCS Sample Id: 7682689-1-BKS — LCSD Sample Id: 7682689-1-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	0.0979	98	0.107	107	70-130	9	35	mg/kg	07.25.19 21:58	
Toluene	0.000510	0.100	0.0934	93	0.102	102	70-130	9	35	mg/kg	07.25.19 21:58	
Ethylbenzene	<0.000565	0.100	0.0937	94	0.103	103	70-130	9	35	mg/kg	07.25.19 21:58	
m,p-Xylenes	<0.00101	0.200	0.188	94	0.207	104	70-130	10	35	mg/kg	07.25.19 21:58	
o-Xylene	<0.000344	0.100	0.0994	99	0.110	110	70-130	10	35	mg/kg	07.25.19 21:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		99		100		70-130	%	07.25.19 21:58
4-Bromofluorobenzene	106		108		109		70-130	%	07.25.19 21:58

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

QC Summary 631513

LT Environmental, Inc.

JRU DI 1

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096597 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631513-001 — MS Sample Id: 631513-001 S — MSD Sample Id: 631513-001 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	0.0904	90	0.0952	96	70-130	5	35	mg/kg	07.24.19 21:35	
Toluene	<0.000456	0.100	0.0795	80	0.0806	81	70-130	1	35	mg/kg	07.24.19 21:35	
Ethylbenzene	<0.00200	0.100	0.0709	71	0.0712	72	70-130	0	35	mg/kg	07.24.19 21:35	
m,p-Xylenes	<0.00101	0.200	0.146	73	0.146	73	70-130	0	35	mg/kg	07.24.19 21:35	
o-Xylene	<0.00200	0.100	0.0773	77	0.0762	77	70-130	1	35	mg/kg	07.24.19 21:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		115		70-130	%	07.24.19 21:35
4-Bromofluorobenzene	112		108		70-130	%	07.24.19 21:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096598 — Matrix: Soil — Date Prep: 07.24.19
Parent Sample Id: 631513-020 — MS Sample Id: 631513-020 S — MSD Sample Id: 631513-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0887	90	0.0831	83	70-130	7	35	mg/kg	07.25.19 22:38	
Toluene	<0.00198	0.0990	0.0813	82	0.0769	77	70-130	6	35	mg/kg	07.25.19 22:38	
Ethylbenzene	<0.00198	0.0990	0.0805	81	0.0766	77	70-130	5	35	mg/kg	07.25.19 22:38	
m,p-Xylenes	<0.00100	0.198	0.161	81	0.154	77	70-130	4	35	mg/kg	07.25.19 22:38	
o-Xylene	<0.00198	0.0990	0.0865	87	0.0827	83	70-130	4	35	mg/kg	07.25.19 22:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	07.25.19 22:38
4-Bromofluorobenzene	111		114		70-130	%	07.25.19 22:38

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

Page 718 of 1119

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 Carlsbad, 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: 631513

Page 1 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	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:	SLe@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:	JRU DI I	Turn Around	
Project Number:	2RP-2440 13046	Routine ☑	Pres. Code
Project Location		Rush:	
Sampler's Name:	Spencer L.	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.6	Thermometer ID	TVH007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chloride (EPA 300)
	PH01	S	7.17.19	1040	2'	1			
	PH01A			1055	4'				
	PH02			1105	1'				
	PH02A			1135	4'				
	PH03			1145	1'				
	PH03A			1210	4'				
	PH04			1240	1'				
	PH04A			1310	4'				
	PH05			1320	1'				
	PH05A			1350	4'				

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		820 7.19.19	2		
			4		
			6		

Revised Date 082818 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 71 of 83

Page 719 of 1119

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 Crailsbad, 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: 631513

Page 2 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	Company Name:	LTO
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:	jlott@ltenv.com

Work Order Comments

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

Project Name:	JLV DI 1	Turn Around	
Project Number:	2RP 2440 / 3046	Routine: ☑	
Project Location:		Rush:	
Sampler's Name:	Spencer L.	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.6	Thermometer ID	TNH03
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chlorides (EPA 300)
	PH05	S	7.17.19	1400	1'	1			
	PH06A			1430	4'				
	PH07			1440	1'				
	PH07A			1510	4'				
	PH08			1520	1'				
	PH08A			1550	4'				
	PH09			1610	1'				
	PH09A			1630	4'				
	PH10			1650	1'				
	PH10A	↓	↓	1710	4'	↓	↓	↓	↓

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		830 7.19.19	2		
			4		
			6		

Revised Date 032819 Rev. 2019.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 72 of 83

Page 720 of 1119

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 Crestbad, 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: U3(573

Page 3 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	Company Name:	RTD
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:	slop@lenv.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:	JAU DI 2	Turn Around	
Project Number:	200-2440/3046	Routine:	☑
Project Location		Rush:	
Sampler's Name:	Spence Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5.6	Thermometer ID	TPM007	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:	5	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chlorides (EPA 300)	Preservative Codes
	PH11	S	7-18-19	910	1'	1				
	PH11A			950	4'					
	PH12			1010	1'					
	PH12A			1050	4'					
	PH13			1110	1'					
	PH13A			1200	4'					
	PH14			1245	1'					
	PH14A	↓	↓	1300	4'	↓				
					Spence Lo					

Preservative Codes: MeOH: Me; None: NO; HNO3: HN; H2SO4: H2; HCL: HL; NaOH: Na; Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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
		830 7-19-19	2		
			4		
			6		

Revised Date 032818 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 73 of 83

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-001	S	PH01	07.17.2019 10:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-001	S	PH01	07.17.2019 10:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-001	S	PH01	07.17.2019 10:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-002	S	PH01A	07.17.2019 10:55	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-003	S	PH02	07.17.2019 11:05	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-004	S	PH02A	07.17.2019 11:35	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-005	S	PH03	07.17.2019 11:45	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-007	S	PH04	07.17.2019 12:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-008	S	PH04A	07.17.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-008	S	PH04A	07.17.2019 13:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-009	S	PH05	07.17.2019 13:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-010	S	PH05A	07.17.2019 13:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-011	S	PH06	07.17.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-011	S	PH06	07.17.2019 14:00	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-012	S	PH06A	07.17.2019 14:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-013	S	PH07	07.17.2019 14:40	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-014	S	PH07A	07.17.2019 15:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-015	S	PH08	07.17.2019 15:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-015	S	PH08	07.17.2019 15:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-016	S	PH08A	07.17.2019 15:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-017	S	PH09	07.17.2019 16:10	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-017	S	PH09	07.17.2019 16:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number : 43847

Date/Time: 07.19.2019 11:03
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

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
631513-017	S	PH09	07.17.2019 16:10	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-018	S	PH09A	07.17.2019 16:30	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-018	S	PH09A	07.17.2019 16:30	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-018	S	PH09A	07.17.2019 16:30	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-019	S	PH10	07.17.2019 16:50	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-019	S	PH10	07.17.2019 16:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-019	S	PH10	07.17.2019 16:50	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-020	S	PH10A	07.17.2019 17:20	SW8021B	BTEX by EPA 8021B	07.25.2019	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	E300_CL	Chloride by EPA 300	07.25.2019	01.13.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-021	S	PH11	07.18.2019 09:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-022	S	PH11A	07.18.2019 09:50	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-023	S	PH12	07.18.2019 10:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-024	S	PH12A	07.18.2019 10:50	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-024	S	PH12A	07.18.2019 10:50	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-025	S	PH13	07.18.2019 11:10	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-025	S	PH13	07.18.2019 11:10	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number : 43847

Date/Time:	07.19.2019 11:03	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-026	S	PH13A	07.18.2019 12:00	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-026	S	PH13A	07.18.2019 12:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-026	S	PH13A	07.18.2019 12:00	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-027	S	PH14	07.18.2019 12:15	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-027	S	PH14	07.18.2019 12:15	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	E300_CL	Chloride by EPA 300	07.25.2019	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	SW8021B	BTEX by EPA 8021B	07.25.2019	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-028	S	PH14A	07.18.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	07.25.2019	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Date Relinquished: 

Elizabeth McClellan

07.19.2019

Date Received:

Cooler Temperature:

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-001	S	PH01	07.17.2019 10:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-001	S	PH01	07.17.2019 10:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-001	S	PH01	07.17.2019 10:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-002	S	PH01A	07.17.2019 10:55	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-002	S	PH01A	07.17.2019 10:55	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-002	S	PH01A	07.17.2019 10:55	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-003	S	PH02	07.17.2019 11:05	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-003	S	PH02	07.17.2019 11:05	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-003	S	PH02	07.17.2019 11:05	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-004	S	PH02A	07.17.2019 11:35	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-004	S	PH02A	07.17.2019 11:35	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-004	S	PH02A	07.17.2019 11:35	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-005	S	PH03	07.17.2019 11:45	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-005	S	PH03	07.17.2019 11:45	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-005	S	PH03	07.17.2019 11:45	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-006	S	PH03A	07.17.2019 12:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-006	S	PH03A	07.17.2019 12:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-007	S	PH04	07.17.2019 12:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-007	S	PH04	07.17.2019 12:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-007	S	PH04	07.17.2019 12:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-008	S	PH04A	07.17.2019 13:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-008	S	PH04A	07.17.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-009	S	PH05	07.17.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-009	S	PH05	07.17.2019 13:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-009	S	PH05	07.17.2019 13:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-010	S	PH05A	07.17.2019 13:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-010	S	PH05A	07.17.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-010	S	PH05A	07.17.2019 13:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-011	S	PH06	07.17.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-011	S	PH06	07.17.2019 14:00	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-012	S	PH06A	07.17.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-012	S	PH06A	07.17.2019 14:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-013	S	PH07	07.17.2019 14:40	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-013	S	PH07	07.17.2019 14:40	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-014	S	PH07A	07.17.2019 15:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-014	S	PH07A	07.17.2019 15:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-015	S	PH08	07.17.2019 15:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-015	S	PH08	07.17.2019 15:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-016	S	PH08A	07.17.2019 15:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-016	S	PH08A	07.17.2019 15:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-017	S	PH09	07.17.2019 16:10	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-017	S	PH09	07.17.2019 16:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-017	S	PH09	07.17.2019 16:10	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-018	S	PH09A	07.17.2019 16:30	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-018	S	PH09A	07.17.2019 16:30	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-018	S	PH09A	07.17.2019 16:30	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-019	S	PH10	07.17.2019 16:50	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-019	S	PH10	07.17.2019 16:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-019	S	PH10	07.17.2019 16:50	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	07.31.2019	JKR	GRO-DRO PHCC10C28	
631513-020	S	PH10A	07.17.2019 17:20	SW8021B	BTEX by EPA 8021B	HOLD	07.31.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-020	S	PH10A	07.17.2019 17:20	E300_CL	Chloride by EPA 300	HOLD	01.13.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-021	S	PH11	07.18.2019 09:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-021	S	PH11	07.18.2019 09:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-022	S	PH11A	07.18.2019 09:50	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-022	S	PH11A	07.18.2019 09:50	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-023	S	PH12	07.18.2019 10:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-023	S	PH12	07.18.2019 10:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-024	S	PH12A	07.18.2019 10:50	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-024	S	PH12A	07.18.2019 10:50	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-025	S	PH13	07.18.2019 11:10	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-025	S	PH13	07.18.2019 11:10	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number : 43848

Date/Time:	07.19.2019 11:09	Created by:	Elizabeth Mcclellan	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631513-026	S	PH13A	07.18.2019 12:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-026	S	PH13A	07.18.2019 12:00	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-026	S	PH13A	07.18.2019 12:00	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-027	S	PH14	07.18.2019 12:15	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-027	S	PH14	07.18.2019 12:15	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	
631513-028	S	PH14A	07.18.2019 13:00	SW8021B	BTEX by EPA 8021B	HOLD	08.01.2019	JKR	BR4FBZ BZ BZME EBZ	
631513-028	S	PH14A	07.18.2019 13:00	E300_CL	Chloride by EPA 300	HOLD	01.14.2020	JKR	CL	
631513-028	S	PH14A	07.18.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	HOLD	08.01.2019	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Date Relinquished: 

Elizabeth McClellan

07.19.2019

Date Received:

Cooler Temperature:

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 43847

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

Sent By: Elizabeth McClellan **Date Sent:** 07/19/2019 11:03 AM

Received By: **Date Received:**

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: _____ Date: _____
Katie Lowe

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/19/2019 08:30:00 AM

Work Order #: 631513

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	5.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#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)?	**Yes**	Subbed to Xenco 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: 07/19/2019

Checklist reviewed by: Jessica Kramer Date: 07/22/2019

Jessica Kramer

Analytical Report 615724

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 1

012918059

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): **615724**
JRU DI 1
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) 615724. 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. 615724 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 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	02-19-19 12:30	2 ft	615724-001
PH01A	S	02-19-19 12:50	4 ft	615724-002
PH02	S	02-19-19 12:40	2 ft	615724-003
PH02A	S	02-19-19 12:45	4 ft	615724-004
PH03	S	02-19-19 14:40	1 ft	615724-005
PH03A	S	02-19-19 14:50	4 ft	615724-006
PH04	S	02-19-19 13:10	2 ft	615724-007
PH04A	S	02-19-19 13:20	4 ft	615724-008
PH05	S	02-19-19 14:20	3 ft	615724-009
PH05A	S	02-19-19 14:25	4 ft	615724-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI 1

Project ID: *012918059*
Work Order Number(s): *615724*

Report Date: *05-MAR-19*
Date Received: *02/26/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3080943 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3081074 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 615724

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 012918059
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Feb-26-19 11:00 am
Report Date: 05-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	615724-001		615724-002		615724-003		615724-004		615724-005		615724-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	2- ft		4- ft		2- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-19-19 12:30		Feb-19-19 12:50		Feb-19-19 12:40		Feb-19-19 12:45		Feb-19-19 14:40		Feb-19-19 14:50	
BTEX by EPA 8021B	***Extracted:***	Mar-03-19 19:00		Mar-03-19 19:00		Mar-04-19 07:30		Mar-04-19 07:30		Mar-04-19 07:30		Mar-04-19 07:30	
	Analyzed:	Mar-04-19 03:51		Mar-04-19 04:10		Mar-04-19 11:12		Mar-04-19 15:31		Mar-04-19 15:50		Mar-04-19 16:09	
	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	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	0.0250	0.00200	0.0193	0.00201	0.0170	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<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	<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	<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	<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	0.0250	0.00200	0.0193	0.00201	0.0170	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Mar-01-19 16:30		Mar-01-19 16:30		Mar-01-19 12:00		Mar-01-19 12:00		Mar-01-19 12:00		Mar-01-19 12:00	
	Analyzed:	Mar-02-19 02:37		Mar-02-19 13:18		Mar-01-19 23:29		Mar-01-19 23:35		Mar-01-19 23:42		Mar-02-19 13:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		393	50.0	65.1	5.00	78.1	24.8	793	50.0	806	50.0	18.0	5.00
TPH by SW8015 Mod	***Extracted:***	Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00	
	Analyzed:	Feb-27-19 12:52		Feb-27-19 13:50		Feb-27-19 14:09		Feb-27-19 14:28		Feb-27-19 14:48		Feb-27-19 15:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	19.2	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	19.2	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 615724

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 1

Project Id: 012918059
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Feb-26-19 11:00 am
Report Date: 05-MAR-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	615724-007		615724-008		615724-009		615724-010					
	Field Id:	PH04		PH04A		PH05		PH05A					
	Depth:	2- ft		4- ft		3- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Feb-19-19 13:10		Feb-19-19 13:20		Feb-19-19 14:20		Feb-19-19 14:25					
BTEX by EPA 8021B	***Extracted:***	Mar-04-19 07:30		Mar-04-19 07:30		Mar-04-19 07:30		Mar-04-19 07:30					
	Analyzed:	Mar-04-19 16:28		Mar-04-19 16:47		Mar-04-19 18:26		Mar-04-19 18:45					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201				
Toluene		0.0149	0.00200	0.0135	0.00200	0.0113	0.00199	0.0109	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201				
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201				
Total BTEX		0.0149	0.00200	0.0135	0.00200	0.0113	0.00199	0.0109	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Mar-01-19 12:00		Mar-01-19 12:00		Mar-01-19 12:00		Mar-01-19 12:00					
	Analyzed:	Mar-01-19 23:54		Mar-02-19 13:12		Mar-02-19 12:46		Mar-02-19 12:52					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		113	50.0	130	4.99	95.7	5.00	57.1	4.97				
TPH by SW8015 Mod	***Extracted:***	Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00		Feb-27-19 08:00					
	Analyzed:	Feb-27-19 15:26		Feb-27-19 15:46		Feb-27-19 16:05		Feb-27-19 16:24					
	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				

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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-001	Date Collected:	02.19.19 12.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 16.30	Basis:	Wet Weight
Seq Number:	3081018				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**393**	50.0	mg/kg	03.02.19 02.37		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 12.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 12.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 12.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 12.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	02.27.19 12.52	
o-Terphenyl	84-15-1	108	%	70-135	02.27.19 12.52	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-001	Date Collected:	02.19.19 12.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.03.19 19.00	Basis:	Wet Weight
Seq Number:	3080943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.04.19 03.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.04.19 03.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	122	%	70-130	03.04.19 03.51	
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.04.19 03.51	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-002	Date Collected:	02.19.19 12.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 16.30	Basis:	Wet Weight
Seq Number:	3081018				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**65.1**	5.00	mg/kg	03.02.19 13.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.27.19 13.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.27.19 13.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.27.19 13.50	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.27.19 13.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.27.19 13.50	
o-Terphenyl	84-15-1	97	%	70-135	02.27.19 13.50	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-002	Date Collected:	02.19.19 12.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.03.19 19.00	Basis:	Wet Weight
Seq Number:	3080943				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.04.19 04.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.04.19 04.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.04.19 04.10	
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.04.19 04.10	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH02** Matrix: Soil Date Received:02.26.19 11.00

Lab Sample Id: 615724-003 Date Collected: 02.19.19 12.40 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.01.19 12.00 Basis: Wet Weight

Seq Number: 3080951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.1**	24.8	mg/kg	03.01.19 23.29		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.27.19 08.00 Basis: Wet Weight

Seq Number: 3080673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 14.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 14.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 14.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 14.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.27.19 14.09	
o-Terphenyl	84-15-1	97	%	70-135	02.27.19 14.09	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-003	Date Collected:	02.19.19 12.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.04.19 11.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.04.19 11.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.04.19 11.12	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.04.19 11.12	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-004	Date Collected:	02.19.19 12.45	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 12.00	Basis:	Wet Weight
Seq Number:	3080951				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**793**	50.0	mg/kg	03.01.19 23.35		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.27.19 14.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.27.19 14.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	02.27.19 14.28	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.27.19 14.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.27.19 14.28	
o-Terphenyl	84-15-1	96	%	70-135	02.27.19 14.28	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-004	Date Collected:	02.19.19 12.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.04.19 15.31	U	1
Toluene	108-88-3	**0.0250**	0.00200	mg/kg	03.04.19 15.31		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.04.19 15.31	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.04.19 15.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.04.19 15.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.04.19 15.31	U	1
Total BTEX		**0.0250**	0.00200	mg/kg	03.04.19 15.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.04.19 15.31	
1,4-Difluorobenzene	540-36-3	120	%	70-130	03.04.19 15.31	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-005	Date Collected:	02.19.19 14.40	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 12.00	Basis:	Wet Weight
Seq Number:	3080951				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**806**	50.0	mg/kg	03.01.19 23.42		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 14.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**19.2**	15.0	mg/kg	02.27.19 14.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 14.48	U	1
Total TPH	PHC635	**19.2**	15.0	mg/kg	02.27.19 14.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.27.19 14.48	
o-Terphenyl	84-15-1	97	%	70-135	02.27.19 14.48	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-005	Date Collected:	02.19.19 14.40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.04.19 15.50	U	1
Toluene	108-88-3	**0.0193**	0.00201	mg/kg	03.04.19 15.50		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.04.19 15.50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.04.19 15.50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.04.19 15.50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.04.19 15.50	U	1
Total BTEX		**0.0193**	0.00201	mg/kg	03.04.19 15.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.04.19 15.50	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.04.19 15.50	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-006	Date Collected:	02.19.19 14.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 12.00	Basis:	Wet Weight
Seq Number:	3080951				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.0**	5.00	mg/kg	03.02.19 13.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 15.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 15.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 15.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 15.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.27.19 15.07	
o-Terphenyl	84-15-1	100	%	70-135	02.27.19 15.07	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-006	Date Collected:	02.19.19 14.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.04.19 16.09	U	1
Toluene	108-88-3	**0.0170**	0.00199	mg/kg	03.04.19 16.09		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.04.19 16.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.04.19 16.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.04.19 16.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.04.19 16.09	U	1
Total BTEX		**0.0170**	0.00199	mg/kg	03.04.19 16.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	123	%	70-130	03.04.19 16.09	
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.04.19 16.09	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH04** Matrix: Soil Date Received:02.26.19 11.00

Lab Sample Id: 615724-007 Date Collected: 02.19.19 13.10 Sample Depth: 2 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.01.19 12.00 Basis: Wet Weight

Seq Number: 3080951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	50.0	mg/kg	03.01.19 23.54		10

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.27.19 08.00 Basis: Wet Weight

Seq Number: 3080673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 15.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 15.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 15.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 15.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.27.19 15.26	
o-Terphenyl	84-15-1	96	%	70-135	02.27.19 15.26	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-007	Date Collected:	02.19.19 13.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.04.19 16.28	U	1
Toluene	108-88-3	**0.0149**	0.00200	mg/kg	03.04.19 16.28		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.04.19 16.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.04.19 16.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.04.19 16.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.04.19 16.28	U	1
Total BTEX		**0.0149**	0.00200	mg/kg	03.04.19 16.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.04.19 16.28	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.04.19 16.28	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-008	Date Collected:	02.19.19 13.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.01.19 12.00	Basis:	Wet Weight
Seq Number:	3080951				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**130**	4.99	mg/kg	03.02.19 13.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.27.19 08.00	Basis:	Wet Weight
Seq Number:	3080673				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 15.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 15.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 15.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 15.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.27.19 15.46	
o-Terphenyl	84-15-1	95	%	70-135	02.27.19 15.46	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-008	Date Collected:	02.19.19 13.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.04.19 16.47	U	1
Toluene	108-88-3	**0.0135**	0.00200	mg/kg	03.04.19 16.47		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.04.19 16.47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.04.19 16.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.04.19 16.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.04.19 16.47	U	1
Total BTEX		**0.0135**	0.00200	mg/kg	03.04.19 16.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.04.19 16.47	
1,4-Difluorobenzene	540-36-3	122	%	70-130	03.04.19 16.47	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH05** Matrix: Soil Date Received:02.26.19 11.00

Lab Sample Id: 615724-009 Date Collected: 02.19.19 14.20 Sample Depth: 3 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.01.19 12.00 Basis: Wet Weight

Seq Number: 3080951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.7**	5.00	mg/kg	03.02.19 12.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.27.19 08.00 Basis: Wet Weight

Seq Number: 3080673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 16.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 16.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 16.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 16.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.27.19 16.05	
o-Terphenyl	84-15-1	95	%	70-135	02.27.19 16.05	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-009	Date Collected:	02.19.19 14.20	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.04.19 18.26	U	1
Toluene	108-88-3	**0.0113**	0.00199	mg/kg	03.04.19 18.26		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.04.19 18.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.04.19 18.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.04.19 18.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.04.19 18.26	U	1
Total BTEX		**0.0113**	0.00199	mg/kg	03.04.19 18.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	03.04.19 18.26	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.04.19 18.26	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id: **PH05A** Matrix: Soil Date Received:02.26.19 11.00

Lab Sample Id: 615724-010 Date Collected: 02.19.19 14.25 Sample Depth: 4 ft

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

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.01.19 12.00 Basis: Wet Weight

Seq Number: 3080951

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**57.1**	4.97	mg/kg	03.02.19 12.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.27.19 08.00 Basis: Wet Weight

Seq Number: 3080673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.27.19 16.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.27.19 16.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	02.27.19 16.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.27.19 16.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.27.19 16.24	
o-Terphenyl	84-15-1	95	%	70-135	02.27.19 16.24	

Certificate of Analytical Results 615724

LT Environmental, Inc., Arvada, CO

JRU DI 1

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	02.26.19 11.00
Lab Sample Id:	615724-010	Date Collected:	02.19.19 14.25	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.04.19 07.30	Basis:	Wet Weight
Seq Number:	3081074				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.04.19 18.45	U	1
Toluene	108-88-3	**0.0109**	0.00201	mg/kg	03.04.19 18.45		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.04.19 18.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.04.19 18.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.04.19 18.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.04.19 18.45	U	1
Total BTEX		**0.0109**	0.00201	mg/kg	03.04.19 18.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.04.19 18.45	
1,4-Difluorobenzene	540-36-3	122	%	70-130	03.04.19 18.45	

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 615724

LT Environmental, Inc.

JRU DI 1

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080951 — Matrix: Solid — Date Prep: 03.01.19
MB Sample Id: 7672861-1-BLK — LCS Sample Id: 7672861-1-BKS — LCSD Sample Id: 7672861-1-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	251	100	90-110	1	20	mg/kg	03.01.19 20:59	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081018 — Matrix: Solid — Date Prep: 03.01.19
MB Sample Id: 7672864-1-BLK — LCS Sample Id: 7672864-1-BKS — LCSD Sample Id: 7672864-1-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	256	102	257	103	90-110	0	20	mg/kg	03.02.19 00:33	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080951 — Matrix: Soil — Date Prep: 03.01.19
Parent Sample Id: 615725-001 — MS Sample Id: 615725-001 S — MSD Sample Id: 615725-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	522	248	732	85	729	83	90-110	0	20	mg/kg	03.01.19 21:19	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3080951 — Matrix: Soil — Date Prep: 03.01.19
Parent Sample Id: 615725-004 — MS Sample Id: 615725-004 S — MSD Sample Id: 615725-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	39.9	249	306	107	309	108	90-110	1	20	mg/kg	03.01.19 22:50	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3081018 — Matrix: Soil — Date Prep: 03.01.19
Parent Sample Id: 615637-004 — MS Sample Id: 615637-004 S — MSD Sample Id: 615637-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.855	249	262	105	270	108	90-110	3	20	mg/kg	03.02.19 00:53	

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 615724

LT Environmental, Inc.

JRU DI 1

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081018 Matrix: Soil Date Prep: 03.01.19
Parent Sample Id: 615723-005 MS Sample Id: 615723-005 S MSD Sample Id: 615723-005 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	262	106	265	107	90-110	1	20	mg/kg	03.02.19 02:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3080673 Matrix: Solid Date Prep: 02.27.19
MB Sample Id: 7672695-1-BLK LCS Sample Id: 7672695-1-BKS LCSD Sample Id: 7672695-1-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	935	94	925	93	70-135	1	20	mg/kg	02.27.19 12:14	
Diesel Range Organics (DRO)	<8.13	1000	929	93	928	93	70-135	0	20	mg/kg	02.27.19 12:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		111		114		70-135	%	02.27.19 12:14
o-Terphenyl	100		95		97		70-135	%	02.27.19 12:14

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3080673 Matrix: Soil Date Prep: 02.27.19
Parent Sample Id: 615724-001 MS Sample Id: 615724-001 S MSD Sample Id: 615724-001 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	951	95	935	94	70-135	2	20	mg/kg	02.27.19 13:12	
Diesel Range Organics (DRO)	<8.12	999	918	92	926	93	70-135	1	20	mg/kg	02.27.19 13:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		117		70-135	%	02.27.19 13:12
o-Terphenyl	98		96		70-135	%	02.27.19 13:12

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

QC Summary 615724

LT Environmental, Inc.

JRU DI 1

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080943 — Matrix: Solid — Date Prep: 03.03.19
MB Sample Id: 7672880-1-BLK — LCS Sample Id: 7672880-1-BKS — LCSD Sample Id: 7672880-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.125	125	0.122	122	70-130	2	35	mg/kg	03.03.19 20:19	
Toluene	<0.000457	0.100	0.118	118	0.116	116	70-130	2	35	mg/kg	03.03.19 20:19	
Ethylbenzene	<0.000567	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	03.03.19 20:19	
m,p-Xylenes	<0.00102	0.201	0.218	108	0.214	108	70-130	2	35	mg/kg	03.03.19 20:19	
o-Xylene	<0.000346	0.100	0.105	105	0.103	103	70-130	2	35	mg/kg	03.03.19 20:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		113		112		70-130	%	03.03.19 20:19
4-Bromofluorobenzene	99		101		100		70-130	%	03.03.19 20:19

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3081074 — Matrix: Solid — Date Prep: 03.04.19
MB Sample Id: 7672932-1-BLK — LCS Sample Id: 7672932-1-BKS — LCSD Sample Id: 7672932-1-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	0.129	130	0.126	126	70-130	2	35	mg/kg	03.04.19 09:20	
Toluene	<0.000453	0.0994	0.106	107	0.110	110	70-130	4	35	mg/kg	03.04.19 09:20	
Ethylbenzene	<0.000561	0.0994	0.0971	98	0.101	101	70-130	4	35	mg/kg	03.04.19 09:20	
m,p-Xylenes	<0.00101	0.199	0.197	99	0.204	102	70-130	3	35	mg/kg	03.04.19 09:20	
o-Xylene	<0.000342	0.0994	0.0939	94	0.0976	98	70-130	4	35	mg/kg	03.04.19 09:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		110		113		70-130	%	03.04.19 09:20
4-Bromofluorobenzene	95		96		100		70-130	%	03.04.19 09:20

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3080943 — Matrix: Soil — Date Prep: 03.03.19
Parent Sample Id: 615614-001 — MS Sample Id: 615614-001 S — MSD Sample Id: 615614-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.134	133	0.0773	155	70-130	54	35	mg/kg	03.03.19 20:57	XF
Toluene	0.000928	0.101	0.0970	95	0.0624	123	70-130	43	35	mg/kg	03.03.19 20:57	F
Ethylbenzene	<0.000569	0.101	0.0805	80	0.0523	105	70-130	42	35	mg/kg	03.03.19 20:57	F
m,p-Xylenes	0.00118	0.202	0.162	80	0.111	110	70-130	37	35	mg/kg	03.03.19 20:57	F
o-Xylene	0.000489	0.101	0.0780	77	0.0542	107	70-130	36	35	mg/kg	03.03.19 20:57	F

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		109		70-130	%	03.03.19 20:57
4-Bromofluorobenzene	103		119		70-130	%	03.03.19 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 615724

LT Environmental, Inc.

JRU DI 1

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

Seq Number: 3081074 Matrix: Soil Date Prep: 03.04.19

Parent Sample Id: 615724-003 MS Sample Id: 615724-003 S MSD Sample Id: 615724-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.118	118	0.117	116	70-130	1	35	mg/kg	03.04.19 09:58	
Toluene	<0.000455	0.0998	0.0961	96	0.0942	93	70-130	2	35	mg/kg	03.04.19 09:58	
Ethylbenzene	<0.000564	0.0998	0.0877	88	0.0858	85	70-130	2	35	mg/kg	03.04.19 09:58	
m,p-Xylenes	<0.00101	0.200	0.178	89	0.173	86	70-130	3	35	mg/kg	03.04.19 09:58	
o-Xylene	0.000359	0.0998	0.0858	86	0.0831	82	70-130	3	35	mg/kg	03.04.19 09:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		116		70-130	%	03.04.19 09:58
4-Bromofluorobenzene	102		104		70-130	%	03.04.19 09:58

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

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

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

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

Page 762 of 1119

Chain of Custody

Work Order No: 615724

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 Littrel
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO - Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM
Phone:	432.704.5178	Email:	

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:	JRU DI 1	Turn Around	
Project Number:	01291 8059	Routine	☑
P.O. Number:	2RP - 2334	Rush:	
Sampler's Name:	Robert McPee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.2 / 0.1	Thermometer ID	KE
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)
PH01	S	02/19/19	1230	2'	1	X	X	X
PH01A			1250	4'		X	X	X
PH02			1240	2'		X	X	X
PH02A			1245	4'		X	X	X
PH03			1440	1'		X	X	X
PH03A			1450	4'		X	X	X
PH04			1310	2'		X	X	X
PH04A			1320	4'		X	X	X
PH05			1420	3'		X	X	X
PH05A			1425	4'		X	X	X

Work Order Notes

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

Sample Comments

discrete

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

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

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
1	Robert McPee	[signature]	2/22/19 1100
2			
3			
4			
5			
6			

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[signature]	[signature]	2/26/19 1100

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 32 of 34



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: 02/26/2019 11:00:00 AM

Work Order #: 615724

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: 02/26/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 02/26/2019

Jessica Kramer

ANALYTICAL REPORT

January 03, 2018

XTO Energy- Delaware Division

Sample Delivery Group:	L959672
Samples Received:	12/23/2017
Project Number:	30-015-22162
Description:	Confirmation Soil Samples
Site:	JAMES RANCH UNIT #12H
Report To:	Kyle Littrell 6401 N Holiday Hill Rd Suite 200 Midland, TX 79707

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

SS-1 L959672-01 6

SS-2 L959672-02 7

SS-3 L959672-03 8

SS-4 L959672-04 9

SS-5 L959672-05 10

SS-6 L959672-06 11

SS-7 L959672-07 12

SS-8 L959672-08 13

SS-9 L959672-09 14

Qc: Quality Control Summary 15

Total Solids by Method 2540 G-2011 15

Wet Chemistry by Method 300.0 17

Volatile Organic Compounds (GC) by Method 8015/8021 18

Semi-Volatile Organic Compounds (GC) by Method 8015 20

Gl: Glossary of Terms 21

Al: Accreditations & Locations 22

Sc: Sample Chain of Custody 23

SS-1 L959672-01 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 08:51	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 02:45	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 00:31	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 02:01	ACM

SS-2 L959672-02 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 08:54	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 02:54	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 00:53	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 01:18	ACM

SS-3 L959672-03 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:08	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 03:02	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 01:16	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 01:32	ACM

SS-4 L959672-04 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:12	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 03:28	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 01:39	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 01:47	ACM

SS-5 L959672-05 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:14	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 03:36	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 02:01	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 02:15	ACM

SS-6 L959672-06 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:16	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058631	1	01/02/18 08:08	01/02/18 08:25	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 03:45	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 04:39	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 03:00	ACM

SS-7 L959672-07 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:18	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058632	1	01/02/18 08:44	01/02/18 08:55	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 03:53	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 02:24	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 03:15	ACM

SS-8 L959672-08 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:20	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058632	1	01/02/18 08:44	01/02/18 08:55	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 04:02	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 02:46	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 03:30	ACM

SS-9 L959672-09 Solid

Collected by	Collected date/time	Received date/time
Aaron Williamson	12/20/17 09:23	12/23/17 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1058632	1	01/02/18 08:44	01/02/18 08:55	KDW
Wet Chemistry by Method 300.0	WG1057207	1	12/26/17 21:16	12/27/17 04:10	KCF
Volatile Organic Compounds (GC) by Method 8015/8021	WG1057816	1	12/27/17 13:48	12/28/17 03:09	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1058721	1	01/02/18 09:49	01/03/18 10:25	ACM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Technical Service Representative

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.4		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	63.4		12.0	1	12/27/2017 02:45	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000914	B	0.000600	1	12/28/2017 00:31	WG1057816
Toluene	ND		0.00600	1	12/28/2017 00:31	WG1057816
Ethylbenzene	ND		0.000600	1	12/28/2017 00:31	WG1057816
Total Xylene	ND		0.00180	1	12/28/2017 00:31	WG1057816
TPH (GC/FID) Low Fraction	ND		0.120	1	12/28/2017 00:31	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*91.2*		*77.0-120*		*12/28/2017 00:31*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*12/28/2017 00:31*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.80	1	01/03/2018 02:01	WG1058721
C28-C40 Oil Range	ND		4.80	1	01/03/2018 02:01	WG1058721
(S) o-Terphenyl	*50.5*		*18.0-148*		*01/03/2018 02:01*	WG1058721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.6		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		13.2	1	12/27/2017 02:54	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000813	B	0.000661	1	12/28/2017 00:53	WG1057816
Toluene	ND		0.00661	1	12/28/2017 00:53	WG1057816
Ethylbenzene	ND		0.000661	1	12/28/2017 00:53	WG1057816
Total Xylene	ND		0.00198	1	12/28/2017 00:53	WG1057816
TPH (GC/FID) Low Fraction	ND		0.132	1	12/28/2017 00:53	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*91.8*		*77.0-120*		*12/28/2017 00:53*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 00:53*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		5.29	1	01/03/2018 01:18	WG1058721
C28-C40 Oil Range	ND		5.29	1	01/03/2018 01:18	WG1058721
(S) o-Terphenyl	*46.9*		*18.0-148*		*01/03/2018 01:18*	WG1058721

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.9		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	115		12.1	1	12/27/2017 03:02	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00156	B	0.000603	1	12/28/2017 01:16	WG1057816
Toluene	ND		0.00603	1	12/28/2017 01:16	WG1057816
Ethylbenzene	ND		0.000603	1	12/28/2017 01:16	WG1057816
Total Xylene	ND		0.00181	1	12/28/2017 01:16	WG1057816
TPH (GC/FID) Low Fraction	ND		0.121	1	12/28/2017 01:16	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*91.4*		*77.0-120*		*12/28/2017 01:16*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*102*		*75.0-128*		*12/28/2017 01:16*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.83	1	01/03/2018 01:32	WG1058721
C28-C40 Oil Range	ND		4.83	1	01/03/2018 01:32	WG1058721
(S) o-Terphenyl	*44.9*		*18.0-148*		*01/03/2018 01:32*	WG1058721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.0		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	79.2		12.2	1	12/27/2017 03:28	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.00119	B	0.000610	1	12/28/2017 01:39	WG1057816
Toluene	ND		0.00610	1	12/28/2017 01:39	WG1057816
Ethylbenzene	ND		0.000610	1	12/28/2017 01:39	WG1057816
Total Xylene	ND		0.00183	1	12/28/2017 01:39	WG1057816
TPH (GC/FID) Low Fraction	ND		0.122	1	12/28/2017 01:39	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*91.9*		*77.0-120*		*12/28/2017 01:39*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 01:39*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.88	1	01/03/2018 01:47	WG1058721
C28-C40 Oil Range	ND		4.88	1	01/03/2018 01:47	WG1058721
(S) o-Terphenyl	*54.0*		*18.0-148*		*01/03/2018 01:47*	WG1058721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	46.3		11.2	1	12/27/2017 03:36	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000558	1	12/28/2017 02:01	WG1057816
Toluene	ND		0.00558	1	12/28/2017 02:01	WG1057816
Ethylbenzene	ND		0.000558	1	12/28/2017 02:01	WG1057816
Total Xylene	ND		0.00167	1	12/28/2017 02:01	WG1057816
TPH (GC/FID) Low Fraction	ND		0.112	1	12/28/2017 02:01	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*92.2*		*77.0-120*		*12/28/2017 02:01*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 02:01*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.46	1	01/03/2018 02:15	WG1058721
C28-C40 Oil Range	ND		4.46	1	01/03/2018 02:15	WG1058721
(S) o-Terphenyl	*63.2*		*18.0-148*		*01/03/2018 02:15*	WG1058721

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	01/02/2018 08:25	WG1058631

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	88.1		12.3	1	12/27/2017 03:45	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000982	B	0.000616	1	12/28/2017 04:39	WG1057816
Toluene	ND		0.00616	1	12/28/2017 04:39	WG1057816
Ethylbenzene	ND		0.000616	1	12/28/2017 04:39	WG1057816
Total Xylene	ND	J6	0.00185	1	12/28/2017 04:39	WG1057816
TPH (GC/FID) Low Fraction	ND	J3	0.123	1	12/28/2017 04:39	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*92.1*		*77.0-120*		*12/28/2017 04:39*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 04:39*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.93	1	01/03/2018 03:00	WG1058721
C28-C40 Oil Range	ND		4.93	1	01/03/2018 03:00	WG1058721
(S) o-Terphenyl	*55.3*		*18.0-148*		*01/03/2018 03:00*	WG1058721

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.7		1	01/02/2018 08:55	WG1058632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	75.5		13.6	1	12/27/2017 03:53	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000679	1	12/28/2017 02:24	WG1057816
Toluene	ND		0.00679	1	12/28/2017 02:24	WG1057816
Ethylbenzene	ND		0.000679	1	12/28/2017 02:24	WG1057816
Total Xylene	ND		0.00204	1	12/28/2017 02:24	WG1057816
TPH (GC/FID) Low Fraction	ND		0.136	1	12/28/2017 02:24	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*92.8*		*77.0-120*		*12/28/2017 02:24*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 02:24*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		5.43	1	01/03/2018 03:15	WG1058721
C28-C40 Oil Range	ND		5.43	1	01/03/2018 03:15	WG1058721
(S) o-Terphenyl	*51.9*		*18.0-148*		*01/03/2018 03:15*	WG1058721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.5		1	01/02/2018 08:55	WG1058632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	52.2		13.1	1	12/27/2017 04:02	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000653	1	12/28/2017 02:46	WG1057816
Toluene	ND		0.00653	1	12/28/2017 02:46	WG1057816
Ethylbenzene	ND		0.000653	1	12/28/2017 02:46	WG1057816
Total Xylene	ND		0.00196	1	12/28/2017 02:46	WG1057816
TPH (GC/FID) Low Fraction	ND		0.131	1	12/28/2017 02:46	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*92.2*		*77.0-120*		*12/28/2017 02:46*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 02:46*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		5.23	1	01/03/2018 03:30	WG1058721
C28-C40 Oil Range	ND		5.23	1	01/03/2018 03:30	WG1058721
(S) o-Terphenyl	*42.3*		*18.0-148*		*01/03/2018 03:30*	WG1058721

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.8		1	01/02/2018 08:55	WG1058632

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	79.6		12.5	1	12/27/2017 04:10	WG1057207

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	0.000728	B	0.000627	1	12/28/2017 03:09	WG1057816
Toluene	ND		0.00627	1	12/28/2017 03:09	WG1057816
Ethylbenzene	ND		0.000627	1	12/28/2017 03:09	WG1057816
Total Xylene	ND		0.00188	1	12/28/2017 03:09	WG1057816
TPH (GC/FID) Low Fraction	ND		0.125	1	12/28/2017 03:09	WG1057816
(S) a,a,a-Trifluorotoluene(FID)	*92.0*		*77.0-120*		*12/28/2017 03:09*	WG1057816
(S) a,a,a-Trifluorotoluene(PID)	*103*		*75.0-128*		*12/28/2017 03:09*	WG1057816

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		5.01	1	01/03/2018 10:25	WG1058721
C28-C40 Oil Range	ND		5.01	1	01/03/2018 10:25	WG1058721
(S) o-Terphenyl	*57.6*		*18.0-148*		*01/03/2018 10:25*	WG1058721

QUALITY CONTROL SUMMARY

L959672-01,02,03,04,05,06

Total Solids by Method 2540 G-2011

Method Blank (MB)

(MB) R3277132-1 01/02/18 08:25

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0			

L959669-06 Original Sample (OS) • Duplicate (DUP)

(OS) L959669-06 01/02/18 08:25 • (DUP) R3277132-3 01/02/18 08:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.1	93.7	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3277132-2 01/02/18 08:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

Method Blank (MB)

(MB) R3277133-1 01/02/18 08:55

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.001			

L959675-04 Original Sample (OS) • Duplicate (DUP)

(OS) L959675-04 01/02/18 08:55 • (DUP) R3277133-3 01/02/18 08:55

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	99.1	99.1	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3277133-2 01/02/18 08:55

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85-115	

QUALITY CONTROL SUMMARY

L959672-01,02,03,04,05,06,07,08,09

Wet Chemistry by Method 300.0

ONE LAB.

Method Blank (MB)

(MB) R3275848-1 12/26/17 23:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		0.795	10.0

L959663-01 Original Sample (OS) • Duplicate (DUP)

(OS) L959663-01 12/27/17 00:29 • (DUP) R3275848-4 12/27/17 00:37

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	242	245	1	1.31		20

L959672-09 Original Sample (OS) • Duplicate (DUP)

(OS) L959672-09 12/27/17 04:10 • (DUP) R3275848-7 12/27/17 04:19

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	79.6	77.9	1	2.06		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3275848-2 12/26/17 23:38 • (LCSD) R3275848-3 12/26/17 23:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloride	200	197	197	98.7	98.5	90-110			0.198	20

L959669-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959669-05 12/27/17 02:11 • (MS) R3275848-5 12/27/17 02:20 • (MSD) R3275848-6 12/27/17 02:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	646	211	845	914	98.2	109	1	80-120			7.76	20

Method Blank (MB)

(MB) R3276351-5 12/27/17 22:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000267	J	0.000120	0.000500
Toluene	0.000182	J	0.000150	0.00500
Ethylbenzene	0.000118	J	0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0282	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.9*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*105*			*75.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3276351-1 12/27/17 16:17 • (LCSD) R3276351-2 12/27/17 16:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0449	0.0480	89.9	96.1	71.0-121			6.67	20
Toluene	0.0500	0.0477	0.0507	95.4	101	72.0-120			6.07	20
Ethylbenzene	0.0500	0.0465	0.0499	93.0	99.7	76.0-121			7.03	20
Total Xylene	0.150	0.144	0.155	95.7	103	75.0-124			7.71	20
(S) a,a,a-Trifluorotoluene(FID)				*93.0*	*93.1*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*104*	*103*	*75.0-128*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3276351-3 12/27/17 17:02 • (LCSD) R3276351-4 12/27/17 17:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.67	5.59	103	102	70.0-136			1.51	20
(S) a,a,a-Trifluorotoluene(FID)				*112*	*112*	*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)				*122*	*123*	*75.0-128*				

L959672-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959672-06 12/28/17 04:39 • (MS) R3276351-6 12/28/17 05:02 • (MSD) R3276351-7 12/28/17 05:25

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0616	0.000982	0.0216	0.0187	33.5	28.7	1	10.0-146			14.6	29
Toluene	0.0616	ND	0.0235	0.0202	36.8	31.5	1	10.0-143			15.0	30
Ethylbenzene	0.0616	ND	0.0247	0.0213	39.3	33.8	1	10.0-147			14.8	31
Total Xylene	0.185	ND	0.0728	0.0649	38.9	34.6	1	10.0-149	J6	J6	11.4	30
(S) a,a,a-Trifluorotoluene(FID)					*91.7*	*86.5*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*102*	*96.8*		*75.0-128*				

L959672-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959672-06 12/28/17 04:39 • (MS) R3276351-8 12/28/17 05:47 • (MSD) R3276351-9 12/28/17 06:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	6.78	ND	2.53	1.21	36.7	17.4	1	10.0-147		J3	70.1	30
(S) a,a,a-Trifluorotoluene(FID)					*95.0*	*80.6*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*106*	*91.0*		*75.0-128*				

Method Blank (MB)

(MB) R3277159-1 01/03/18 00:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	*64.5*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3277159-2 01/03/18 00:48 • (LCSD) R3277159-3 01/03/18 01:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	60.0	31.6	30.6	52.7	51.0	50.0-150			3.13	20
(S) o-Terphenyl				*65.6*	*61.2*	*18.0-148*				

L959672-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L959672-05 01/03/18 02:15 • (MS) R3277159-4 01/03/18 02:30 • (MSD) R3277159-5 01/03/18 02:45

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	66.9	ND	38.4	38.7	57.4	57.9	1	50.0-150			0.891	20
(S) o-Terphenyl					*69.5*	*65.6*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



LT Environmental

Billing Information: XTO

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABORATORIES

Report to: Kyle Littrell

Email To: Kyle_Littrell@xtoenergy.com, Abaker@LTenv.com

Project Description: Confirmation Soil Samples

City/State Collected: NM

Phone: Fax: 1-970-317-1867

Client Project #: 30-015-22162

Lab Project #

Collected by (print): Aaron Williamson

Site/Facility ID #: (2RP-3662) James Ranch Unit #124

P.O. #: 012917050

Collected by (signature): Aaron Williamson

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ✓ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX - EPA Method 8021	TPH - EPA Method 8015	Chloride - EPA Method 300.1	Remarks	Sample # (lab only)
SS-1	Grab	SS	2.5'	12/20/17	08:51	1	✓	✓	✓		-01
SS-2	Grab	SS	1.5'	12/20/17	08:54	1	✓	✓	✓		02
SS-3	Grab	SS	1.5'	12/20/17	09:08	1	✓	✓	✓		03
SS-4	Grab	SS	1.5'	12/20/17	09:12	1	✓	✓	✓		04
SS-5	Grab	SS	1.5'	12/20/17	09:14	1	✓	✓	✓		05
SS-6	Grab	SS	2'	12/20/17	09:16	1	✓	✓	✓		06
SS-7	Grab	SS	1.5'	12/20/17	09:18	1	✓	✓	✓		07
SS-8	Grab	SS	1.5'	12/20/17	09:20	1	✓	✓	✓		08
SS-9	Grab	SS	4'	12/20/17	09:23	1	✓	✓	✓		09
NFE Area											

L959672

G101

Acctnum: XTOMRK

Template:

Prelogin:

TSR:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ____ Temp ____

Flow ____ Other ____

Samples returned via: ___ UPS ___ FedEx ___ Courier XDV

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Aaron Williamson	12/20/17	19:03		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.5 50 °C Bottles Received: 9
	12/21/17	14:30	Southwest Airlines	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12-23-17 Time: 0945

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ESCOTK

Received by OCD: 12/11/2020 9:09:15 AM

ESC Lab Sciences
Non-Conformance Form

Login #: L9596672	Client: XTORNM	Date: 12/23/17	Evaluated by: Jeremy

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: What TPH?

Client informed by:		Call		Email		Voice Mail		Date: 12/23/17	Time: 2:40pm
TSR Initials: NM	Client Contact:								

Login Instructions:

These are logged correctly.

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

Page 788 of 1119

Analytical Report 575589

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Well #127/ 30-015-43231

15-FEB-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), 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 (T104704400-17-13)
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)

15-FEB-18

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

Reference: XENCO Report No(s): **575589**
Well #127/ 30-015-43231
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) 575589. 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. 575589 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
Odessa 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 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	02-05-18 15:00	6"	575589-001
SS2	S	02-05-18 15:03	6"	575589-002
SS3	S	02-05-18 15:06	6"	575589-003
SS4	S	02-05-18 15:09	6"	575589-004
SS5	S	02-05-18 15:12	6"	575589-005
SS6	S	02-05-18 15:15	6"	575589-006
SS7	S	02-05-18 15:18	6"	575589-007
SS8	S	02-05-18 15:21	6"	575589-008
SS9	S	02-05-18 15:24	6"	575589-009
SS10	S	02-05-18 15:27	6"	575589-010
SS11	S	02-05-18 15:30	6"	575589-011
SS12	S	02-05-18 15:33	6"	575589-012

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Well #127/ 30-015-43231

Project ID:
Work Order Number(s): *575589*

Report Date: *15-FEB-18*
Date Received: *02/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040899 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3040912 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3041118 Inorganic Anions by EPA 300
Lab Sample ID 575589-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 575589-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 575589

LT Environmental, Inc., Arvada, CO

Project Name: Well #127/ 30-015-43231

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Feb-07-18 08:00 am
Report Date: 15-FEB-18
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	575589-001		575589-002		575589-003		575589-004		575589-005		575589-006	
		Field Id:	SS1		SS2		SS3		SS4		SS5		SS6	
		Depth:	6"-		6"-		6"-		6"-		6"-		6"-	
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Feb-05-18 15:00		Feb-05-18 15:03		Feb-05-18 15:06		Feb-05-18 15:09		Feb-05-18 15:12		Feb-05-18 15:15	
BTEX by EPA 8021B		Extracted:	Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-13-18 10:00	
		Analyzed:	Feb-12-18 10:21		Feb-12-18 10:39		Feb-12-18 10:58		Feb-12-18 11:16		Feb-12-18 11:35		Feb-13-18 19:18	
		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	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Toluene			<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene			<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes			<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398
o-Xylene			<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes			<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Total BTEX			<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199
Inorganic Anions by EPA 300		Extracted:	Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00	
		Analyzed:	Feb-15-18 10:11		Feb-15-18 10:36		Feb-15-18 10:42		Feb-15-18 10:47		Feb-15-18 10:52		Feb-15-18 11:08	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride			297	4.96	666	25.0	555	24.8	538	24.7	511	25.0	<4.99	4.99
TPH by SW8015 Mod		Extracted:	Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00	
		Analyzed:	Feb-12-18 15:26		Feb-12-18 15:47		Feb-12-18 16:49		Feb-12-18 17:10		Feb-12-18 17:31		Feb-12-18 17:53	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)			<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)			<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)			<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH			<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Jessica Kramer
Odessa Laboratory Director

Certificate of Analysis Summary 575589

LT Environmental, Inc., Arvada, CO

Project Name: Well #127/ 30-015-43231

Project Id:
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Wed Feb-07-18 08:00 am
Report Date: 15-FEB-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	575589-007		575589-008		575589-009		575589-010		575589-011		575589-012	
	Field Id:	SS7		SS8		SS9		SS10		SS11		SS12	
	Depth:	6"-		6"-		6"-		6"-		6"-		6"-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-05-18 15:18		Feb-05-18 15:21		Feb-05-18 15:24		Feb-05-18 15:27		Feb-05-18 15:30		Feb-05-18 15:33	
BTEX by EPA 8021B	***Extracted:***	Feb-12-18 09:00		Feb-12-18 09:00		Feb-13-18 10:00		Feb-13-18 10:00		Feb-12-18 09:00		Feb-12-18 09:00	
	Analyzed:	Feb-12-18 14:45		Feb-12-18 15:04		Feb-13-18 19:36		Feb-13-18 19:54		Feb-12-18 16:00		Feb-12-18 16:18	
	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	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00399	0.00399	<0.00403	0.00403	<0.00396	0.00396	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00		Feb-14-18 17:00	
	Analyzed:	Feb-15-18 11:13		Feb-15-18 11:19		Feb-15-18 11:24		Feb-15-18 11:29		Feb-15-18 11:35		Feb-15-18 11:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<5.00	5.00	8.56	5.00	<5.00	5.00	5.30	4.97	<5.00	5.00	1030	4.94
TPH by SW8015 Mod	***Extracted:***	Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00		Feb-12-18 09:00	
	Analyzed:	Feb-12-18 18:14		Feb-12-18 18:34		Feb-12-18 18:53		Feb-12-18 19:13		Feb-12-18 19:33		Feb-12-18 19:54	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Odessa Laboratory Director

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-001	Date Collected:	02.05.18 15.00	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**297**	4.96	mg/kg	02.15.18 10.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 15.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 15.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 15.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 15.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.12.18 15.26	
o-Terphenyl	84-15-1	102	%	70-135	02.12.18 15.26	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-001	Date Collected:	02.05.18 15.00	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.12.18 10.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.12.18 10.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	80-120	02.12.18 10.21	
4-Bromofluorobenzene	460-00-4	92	%	80-120	02.12.18 10.21	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-002	Date Collected:	02.05.18 15.03	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**666**	25.0	mg/kg	02.15.18 10.36		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.12.18 15.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.12.18 15.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.12.18 15.47	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.12.18 15.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.12.18 15.47	
o-Terphenyl	84-15-1	96	%	70-135	02.12.18 15.47	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-002	Date Collected:	02.05.18 15.03	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.12.18 10.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 10.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	80-120	02.12.18 10.39	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.12.18 10.39	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-003	Date Collected:	02.05.18 15.06	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**555**	24.8	mg/kg	02.15.18 10.42		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 16.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 16.49	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 16.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 16.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	02.12.18 16.49	
o-Terphenyl	84-15-1	94	%	70-135	02.12.18 16.49	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-003	Date Collected:	02.05.18 15.06	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.12.18 10.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 10.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	80-120	02.12.18 10.58	
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.12.18 10.58	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-004	Date Collected:	02.05.18 15.09	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**538**	24.7	mg/kg	02.15.18 10.47		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 17.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 17.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 17.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 17.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.12.18 17.10	
o-Terphenyl	84-15-1	98	%	70-135	02.12.18 17.10	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-004	Date Collected:	02.05.18 15.09	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.12.18 11.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.12.18 11.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	80-120	02.12.18 11.16	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.12.18 11.16	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-005	Date Collected:	02.05.18 15.12	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**511**	25.0	mg/kg	02.15.18 10.52		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 17.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 17.31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 17.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 17.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.12.18 17.31	
o-Terphenyl	84-15-1	100	%	70-135	02.12.18 17.31	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-005	Date Collected:	02.05.18 15.12	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.12.18 11.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.12.18 11.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.12.18 11.35	
4-Bromofluorobenzene	460-00-4	105	%	80-120	02.12.18 11.35	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-006	Date Collected:	02.05.18 15.15	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	02.15.18 11.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 17.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 17.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 17.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 17.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.12.18 17.53	
o-Terphenyl	84-15-1	100	%	70-135	02.12.18 17.53	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS6**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-006	Date Collected:	02.05.18 15.15	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.13.18 10.00	Basis:	Wet Weight
Seq Number:	3040912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.13.18 19.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.13.18 19.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	80-120	02.13.18 19.18	
1,4-Difluorobenzene	540-36-3	92	%	80-120	02.13.18 19.18	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-007	Date Collected:	02.05.18 15.18	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.15.18 11.13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.12.18 18.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.12.18 18.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.12.18 18.14	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.12.18 18.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.12.18 18.14	
o-Terphenyl	84-15-1	96	%	70-135	02.12.18 18.14	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS7**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-007	Date Collected:	02.05.18 15.18	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.12.18 14.45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.12.18 14.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	80-120	02.12.18 14.45	
1,4-Difluorobenzene	540-36-3	82	%	80-120	02.12.18 14.45	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-008	Date Collected:	02.05.18 15.21	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.56**	5.00	mg/kg	02.15.18 11.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.12.18 18.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.12.18 18.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.12.18 18.34	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.12.18 18.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.12.18 18.34	
o-Terphenyl	84-15-1	106	%	70-135	02.12.18 18.34	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS8**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-008	Date Collected:	02.05.18 15.21	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.12.18 15.04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.12.18 15.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.12.18 15.04	
4-Bromofluorobenzene	460-00-4	108	%	80-120	02.12.18 15.04	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-009	Date Collected:	02.05.18 15.24	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.15.18 11.24	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 18.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 18.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 18.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 18.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	02.12.18 18.53	
o-Terphenyl	84-15-1	101	%	70-135	02.12.18 18.53	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS9**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-009	Date Collected:	02.05.18 15.24	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.13.18 10.00	Basis:	Wet Weight
Seq Number:	3040912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.13.18 19.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.13.18 19.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	80-120	02.13.18 19.36	
4-Bromofluorobenzene	460-00-4	113	%	80-120	02.13.18 19.36	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-010	Date Collected:	02.05.18 15.27	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.30**	4.97	mg/kg	02.15.18 11.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 19.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 19.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 19.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.12.18 19.13	
o-Terphenyl	84-15-1	100	%	70-135	02.12.18 19.13	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS10**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-010	Date Collected:	02.05.18 15.27	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.13.18 10.00	Basis:	Wet Weight
Seq Number:	3040912				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	02.13.18 19.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.13.18 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	80-120	02.13.18 19.54	
4-Bromofluorobenzene	460-00-4	120	%	80-120	02.13.18 19.54	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-011	Date Collected:	02.05.18 15.30	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	02.14.18 17.00	Basis:	Wet Weight
Seq Number:	3041118				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	02.15.18 11.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040880				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 19.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 19.33	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 19.33	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 19.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.12.18 19.33	
o-Terphenyl	84-15-1	96	%	70-135	02.12.18 19.33	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS11**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-011	Date Collected:	02.05.18 15.30	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.12.18 16.00	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.12.18 16.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	80-120	02.12.18 16.00	
1,4-Difluorobenzene	540-36-3	87	%	80-120	02.12.18 16.00	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id: **SS12** Matrix: Soil Date Received:02.07.18 08.00

Lab Sample Id: 575589-012 Date Collected: 02.05.18 15.33 Sample Depth: 6"

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

Tech: OJS % Moisture:

Analyst: OJS Date Prep: 02.14.18 17.00 Basis: Wet Weight

Seq Number: 3041118

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1030**	4.94	mg/kg	02.15.18 11.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: ARM % Moisture:

Analyst: ARM Date Prep: 02.12.18 09.00 Basis: Wet Weight

Seq Number: 3040880

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.12.18 19.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.12.18 19.54	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.12.18 19.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.12.18 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.12.18 19.54	
o-Terphenyl	84-15-1	100	%	70-135	02.12.18 19.54	

Certificate of Analytical Results 575589

LT Environmental, Inc., Arvada, CO

Well #127/ 30-015-43231

Sample Id:	**SS12**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575589-012	Date Collected:	02.05.18 15.33	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.12.18 09.00	Basis:	Wet Weight
Seq Number:	3040899				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.12.18 16.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.12.18 16.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	80-120	02.12.18 16.18	
4-Bromofluorobenzene	460-00-4	114	%	80-120	02.12.18 16.18	

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

+ NELAC certification not offered for this compound.

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

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 - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

QC Summary 575589

LT Environmental, Inc.

Well #127/ 30-015-43231

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3041118 — Matrix: Solid — Date Prep: 02.14.18
MB Sample Id: 7639166-1-BLK — LCS Sample Id: 7639166-1-BKS — LCSD Sample Id: 7639166-1-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	272	109	266	106	90-110	2	20	mg/kg	02.15.18 09:46	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3041118 — Matrix: Soil — Date Prep: 02.14.18
Parent Sample Id: 575589-001 — MS Sample Id: 575589-001 S — MSD Sample Id: 575589-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	297	248	540	98	606	125	90-110	12	20	mg/kg	02.15.18 10:31	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3041118 — Matrix: Soil — Date Prep: 02.14.18
Parent Sample Id: 575589-011 — MS Sample Id: 575589-011 S — MSD Sample Id: 575589-011 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	275	110	281	112	90-110	2	20	mg/kg	02.15.18 11:40	X

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040880 — Matrix: Solid — Date Prep: 02.12.18
MB Sample Id: 7639019-1-BLK — LCS Sample Id: 7639019-1-BKS — LCSD Sample Id: 7639019-1-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	854	85	973	97	70-135	13	35	mg/kg	02.12.18 11:03	
Diesel Range Organics (DRO)	<15.0	1000	966	97	1060	106	70-135	9	35	mg/kg	02.12.18 11:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		113		123		70-135	%	02.12.18 11:03
o-Terphenyl	104		106		124		70-135	%	02.12.18 11:03

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

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

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

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

QC Summary 575589

LT Environmental, Inc.

Well #127/ 30-015-43231

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3040880 Matrix: Soil Date Prep: 02.12.18
Parent Sample Id: 576109-001 MS Sample Id: 576109-001 S MSD Sample Id: 576109-001 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	948	95	856	86	70-135	10	35	mg/kg	02.12.18 12:04	
Diesel Range Organics (DRO)	<15.0	998	1050	105	980	98	70-135	7	35	mg/kg	02.12.18 12:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		99		70-135	%	02.12.18 12:04
o-Terphenyl	107		97		70-135	%	02.12.18 12:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040899 Matrix: Solid Date Prep: 02.12.18
MB Sample Id: 7639034-1-BLK LCS Sample Id: 7639034-1-BKS LCSD Sample Id: 7639034-1-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	0.0994	0.101	102	0.105	105	70-130	4	35	mg/kg	02.12.18 08:26	
Toluene	<0.00199	0.0994	0.0964	97	0.100	100	70-130	4	35	mg/kg	02.12.18 08:26	
Ethylbenzene	<0.00199	0.0994	0.101	102	0.105	105	71-129	4	35	mg/kg	02.12.18 08:26	
m,p-Xylenes	<0.00398	0.199	0.196	98	0.204	102	70-135	4	35	mg/kg	02.12.18 08:26	
o-Xylene	<0.00199	0.0994	0.0987	99	0.103	103	71-133	4	35	mg/kg	02.12.18 08:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		80		83		80-120	%	02.12.18 08:26
4-Bromofluorobenzene	92		104		109		80-120	%	02.12.18 08:26

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040912 Matrix: Solid Date Prep: 02.13.18
MB Sample Id: 7639041-1-BLK LCS Sample Id: 7639041-1-BKS LCSD Sample Id: 7639041-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0991	100	0.0885	89	70-130	11	35	mg/kg	02.13.18 11:26	
Toluene	<0.00198	0.0990	0.0965	97	0.0869	87	70-130	10	35	mg/kg	02.13.18 11:26	
Ethylbenzene	<0.00198	0.0990	0.100	101	0.0903	90	71-129	10	35	mg/kg	02.13.18 11:26	
m,p-Xylenes	<0.00396	0.198	0.195	98	0.176	88	70-135	10	35	mg/kg	02.13.18 11:26	
o-Xylene	<0.00198	0.0990	0.0993	100	0.0899	90	71-133	10	35	mg/kg	02.13.18 11:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		88		92		80-120	%	02.13.18 11:26
4-Bromofluorobenzene	112		119		115		80-120	%	02.13.18 11:26

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

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

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

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

QC Summary 575589

LT Environmental, Inc.

Well #127/ 30-015-43231

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040899 Matrix: Soil Date Prep: 02.12.18
Parent Sample Id: 575589-001 MS Sample Id: 575589-001 S MSD Sample Id: 575589-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0751	75	0.0796	79	70-130	6	35	mg/kg	02.12.18 09:08	
Toluene	<0.00201	0.100	0.0745	75	0.0779	77	70-130	4	35	mg/kg	02.12.18 09:08	
Ethylbenzene	<0.00201	0.100	0.0772	77	0.0802	79	71-129	4	35	mg/kg	02.12.18 09:08	
m,p-Xylenes	<0.00402	0.201	0.151	75	0.157	78	70-135	4	35	mg/kg	02.12.18 09:08	
o-Xylene	<0.00201	0.100	0.0756	76	0.0786	78	71-133	4	35	mg/kg	02.12.18 09:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		82		80-120	%	02.12.18 09:08
4-Bromofluorobenzene	96		112		80-120	%	02.12.18 09:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040912 Matrix: Soil Date Prep: 02.13.18
Parent Sample Id: 576101-001 MS Sample Id: 576101-001 S MSD Sample Id: 576101-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0829	83	0.0930	92	70-130	11	35	mg/kg	02.13.18 12:41	
Toluene	0.00203	0.0994	0.0440	42	0.0441	42	70-130	0	35	mg/kg	02.13.18 12:41	X
Ethylbenzene	<0.00199	0.0994	0.0437	44	0.0367	36	71-129	17	35	mg/kg	02.13.18 12:41	X
m,p-Xylenes	<0.00398	0.199	0.0860	43	0.0666	33	70-135	25	35	mg/kg	02.13.18 12:41	X
o-Xylene	<0.00199	0.0994	0.0430	43	0.0329	33	71-133	27	35	mg/kg	02.13.18 12:41	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		83		80-120	%	02.13.18 12:41
4-Bromofluorobenzene	81		80		80-120	%	02.13.18 12:41

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

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

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

Page 823 of 1119

CHAIN OF CUSTODY

Page 1 Of 2

Revision 2016.1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford, TX (281) 240-4200 | El Paso, TX (915) 585-3443 | Midland, TX (432) 704-5440 | Phoenix, AZ (480) 355-0900 | Service Center- Amarillo, TX (806)678-4514
Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #: | Xenco Job #: ~~575588~~ 575584

Client / Reporting Information

Company Name / Branch: LT Environmental / Permian
Company Address: 3300 N. A Street Bldg 1 suite 103
Email: Abaker@LTenv.com | Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: Well #127 / 30-015-43231
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 30 015 43231

Analytical Information

BTEX method 8021
TPH Method 8015
chloride 300.1

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: HO	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SS1	6"	2/5/18	15:00	S	1									
2	SS2	6"	2/5/18	15:03	S	1									
3	SS3	6"	2/5/18	15:06	S	1									
4	SS4	6"	2/5/18	15:09	S	1									
5	SS5	6"	2/5/18	15:12	S	1									
6	SS6	6"	2/5/18	15:15	S	1									
7	SS7	6"	2/5/18	15:18	S	1									
8	SS8	6"	2/5/18	15:21	S	1									
9	SS9	6"	2/5/18	15:24	S	1									
10	SS10	6"	2/5/18	15:27	S	1									

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

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
- [ ] Level II Report with TRRP checklist

Notes:

JRU DI IA

Temp: 4
IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.8

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		2/6/18 17:45		2	2/7/18 8:00 AM	2
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. / Thermo. Corr. Factor

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 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.

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 35 of 37

Page 824 of 1119

CHAIN OF CUSTODY

Page 2 of 2

Revision 2016.1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford, TX (281) 240-4200 | Dallas, TX (214) 902-0300 | El Paso, TX (915) 585-3443 | Lubbock, TX (806) 794-1296 | Midland, TX (432) 704-5440 | San Antonio, TX (210) 509-3334 | Phoenix, AZ (480) 355-0900 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Amarillo, TX (806)678-4514 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #: | Xenco Job #: ~~575558~~ 575589

Client / Reporting Information

Company Name / Branch: LT Environmental/Permian
Company Address: 3300 N. A Street Bldg 1 Suite 103
Email: Abaker@LTenv.com Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: Well #127 /30-015-43231
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 30 015 43231

Analytical Information

Brex meth 8021
TPH Meth 8015
Chlorides 300.1

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	Field Comments
1	SS11	6"	7/5/18	15:30	S	1		
2	SS12	6"	7/5/18	15:33	S	1		
3								
4								
5								
6								
7								
8								
9								
10	NFE ARW							

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

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
- [ ] Level II Report with TRRP checklist

Notes:

JRU 01 A

Temp: 4
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.8

IR ID:R-8

FI

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		7/6/18 17:45	1	2	7/7/18 8:45 am	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 6	Custody Seal #	Preserved where applicable	On Ice ✓ Cooler Temp. Thermo. Corr. Factor

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 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.

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 36 of 37

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/07/2018 08:00:00 AM

Work Order #: 575589

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)?	3.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 02/07/2018

Checklist reviewed by: Jessica Kramer Date: 02/07/2018

Jessica Kramer

Certificate of Analysis Summary 581764

LT Environmental, Inc., Arvada, CO

Project Name: Well 127

Project Id: 30-015-43231
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Apr-09-18 08:51 am
Report Date: 12-APR-18
Project Manager: Jessica Kramer

Analysis Requested		581764-001		581764-002		581764-003		581764-004		581764-005		581764-006	
	Field Id:	SS 01		SS 02		SS 03		SS 04		SS 05		SS 06	
	Depth:	0-5 ft		0-5 ft		0-5 ft		0-5 ft		0-5 ft		0-5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-06-18 14:22		Apr-06-18 14:25		Apr-06-18 14:26		Apr-06-18 14:28		Apr-06-18 14:29		Apr-06-18 14:30	
BTEX by EPA 8021B	Extracted:	Apr-10-18 08:00		Apr-10-18 08:00		Apr-10-18 08:00		Apr-10-18 08:00		Apr-10-18 16:45		Apr-10-18 16:45	
	Analyzed:	Apr-10-18 16:51		Apr-10-18 17:11		Apr-10-18 17:30		Apr-10-18 17:50		Apr-10-18 22:00		Apr-10-18 22:19	
	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	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Chloride by EPA 300	Extracted:	Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30	
	Analyzed:	Apr-10-18 18:05		Apr-10-18 18:10		Apr-10-18 18:15		Apr-10-18 18:21		Apr-10-18 18:42		Apr-10-18 18:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		584	24.9	7280	99.8	2330	24.9	4390	50.0	1920	25.0	1590	24.9
TPH By SW8015 Mod	Extracted:	Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00	
	Analyzed:	Apr-10-18 08:53		Apr-10-18 09:20		Apr-10-18 09:47		Apr-10-18 10:14		Apr-10-18 11:37		Apr-10-18 12:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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
Oil Range Hydrocarbons (ORO)		<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

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 581764

LT Environmental, Inc., Arvada, CO

Project Name: Well 127

Project Id: 30-015-43231
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Apr-09-18 08:51 am
Report Date: 12-APR-18
Project Manager: Jessica Kramer

Analysis Requested		581764-007		581764-008		581764-009		581764-010		581764-011		581764-012	
	Field Id:	SS 07		SS 08		SS 09		SS 010		SS 011		SS 012	
	Depth:	0-5 ft		0-5 ft		0-5 ft		0-5 ft		0-5 ft		0-5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-06-18 14:32		Apr-06-18 14:33		Apr-06-18 14:35		Apr-06-18 14:36		Apr-06-18 14:37		Apr-06-18 14:39	
BTEX by EPA 8021B	Extracted:	Apr-10-18 16:45		Apr-10-18 16:45		Apr-10-18 16:45		Apr-10-18 16:45		Apr-10-18 16:45		Apr-10-18 16:45	
	Analyzed:	Apr-10-18 22:37		Apr-10-18 22:56		Apr-10-18 23:16		Apr-10-18 23:35		Apr-10-18 23:54		Apr-11-18 00:13	
	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	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	0.00241	0.00198	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	0.0142	0.00198	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00403	0.00403	<0.00401	0.00401	<0.00398	0.00398	<0.00396	0.00396	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	0.0166	0.00198	<0.00201	0.00201
Chloride by EPA 300	Extracted:	Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30		Apr-10-18 11:30	
	Analyzed:	Apr-10-18 19:03		Apr-10-18 19:08		Apr-10-18 19:14		Apr-10-18 18:26		Apr-10-18 19:19		Apr-10-18 19:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3680	25.0	2680	24.9	4630	49.8	6.17	5.00	1640	24.9	88.3	5.00
TPH By SW8015 Mod	Extracted:	Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00		Apr-09-18 15:00	
	Analyzed:	Apr-10-18 12:33		Apr-10-18 13:02		Apr-10-18 13:30		Apr-10-18 13:59		Apr-10-18 14:28		Apr-10-18 14:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 581764

LT Environmental, Inc., Arvada, CO

Project Name: Well 127

Project Id: 30-015-43231
Contact: Adrian Baker
Project Location: NM

Date Received in Lab: Mon Apr-09-18 08:51 am
Report Date: 12-APR-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	581764-013					
	Field Id:	SS 013					
	Depth:	0-5 ft					
	Matrix:	SOIL					
	Sampled:	Apr-06-18 14:40					
BTEX by EPA 8021B	***Extracted:***	Apr-10-18 16:45					
	Analyzed:	Apr-11-18 00:32					
	Units/RL:	mg/kg	RL				
Benzene		<0.00202	0.00202				
Toluene		<0.00202	0.00202				
Ethylbenzene		<0.00202	0.00202				
m,p-Xylenes		<0.00404	0.00404				
o-Xylene		<0.00202	0.00202				
Total Xylenes		<0.00202	0.00202				
Total BTEX		<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Apr-10-18 11:30					
	Analyzed:	Apr-10-18 19:30					
	Units/RL:	mg/kg	RL				
Chloride		995	4.98				
TPH By SW8015 Mod	***Extracted:***	Apr-09-18 15:00					
	Analyzed:	Apr-10-18 15:26					
	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				

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Analytical Report 581764

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Well 127

30-015-43231

12-APR-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

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

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

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

12-APR-18

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

Reference: XENCO Report No(s): **581764**
Well 127
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) 581764. 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. 581764 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 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS 01	S	04-06-18 14:22	0 - 5 ft	581764-001
SS 02	S	04-06-18 14:25	0 - 5 ft	581764-002
SS 03	S	04-06-18 14:26	0 - 5 ft	581764-003
SS 04	S	04-06-18 14:28	0 - 5 ft	581764-004
SS 05	S	04-06-18 14:29	0 - 5 ft	581764-005
SS 06	S	04-06-18 14:30	0 - 5 ft	581764-006
SS 07	S	04-06-18 14:32	0 - 5 ft	581764-007
SS 08	S	04-06-18 14:33	0 - 5 ft	581764-008
SS 09	S	04-06-18 14:35	0 - 5 ft	581764-009
SS 010	S	04-06-18 14:36	0 - 5 ft	581764-010
SS 011	S	04-06-18 14:37	0 - 5 ft	581764-011
SS 012	S	04-06-18 14:39	0 - 5 ft	581764-012
SS 013	S	04-06-18 14:40	0 - 5 ft	581764-013

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Well 127

Project ID: *30-015-43231*
Work Order Number(s): *581764*

Report Date: *12-APR-18*
Date Received: *04/09/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3046232 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3046284 Inorganic Anions by EPA 300
Lab Sample ID 581764-010 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: 581764-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3046285 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 01**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-001	Date Collected:	04.06.18 14.22	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**584**	24.9	mg/kg	04.10.18 18.05		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 08.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 08.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 08.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 08.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	04.10.18 08.53	
o-Terphenyl	84-15-1	101	%	70-135	04.10.18 08.53	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 01**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-001	Date Collected:	04.06.18 14.22	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 08.00	Basis:	Wet Weight
Seq Number:	3046232				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.18 16.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.18 16.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.10.18 16.51	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.10.18 16.51	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 02**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-002	Date Collected:	04.06.18 14.25	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7280**	99.8	mg/kg	04.10.18 18.10		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 09.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 09.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 09.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 09.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.10.18 09.20	
o-Terphenyl	84-15-1	98	%	70-135	04.10.18 09.20	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 02**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-002	Date Collected:	04.06.18 14.25	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 08.00	Basis:	Wet Weight
Seq Number:	3046232				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.10.18 17.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.10.18 17.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.10.18 17.11	
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.10.18 17.11	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 03**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-003	Date Collected:	04.06.18 14.26	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2330**	24.9	mg/kg	04.10.18 18.15		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 09.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 09.47	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 09.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 09.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.10.18 09.47	
o-Terphenyl	84-15-1	100	%	70-135	04.10.18 09.47	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 03**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-003	Date Collected:	04.06.18 14.26	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 08.00	Basis:	Wet Weight
Seq Number:	3046232				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.10.18 17.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.18 17.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.10.18 17.30	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.10.18 17.30	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 04**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-004	Date Collected:	04.06.18 14.28	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4390**	50.0	mg/kg	04.10.18 18.21		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 10.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 10.14	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 10.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 10.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.10.18 10.14	
o-Terphenyl	84-15-1	96	%	70-135	04.10.18 10.14	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 04**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-004	Date Collected:	04.06.18 14.28	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 08.00	Basis:	Wet Weight
Seq Number:	3046232				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.18 17.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.18 17.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.10.18 17.50	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.10.18 17.50	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 05**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-005	Date Collected:	04.06.18 14.29	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1920**	25.0	mg/kg	04.10.18 18.42		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 11.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 11.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 11.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 11.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	04.10.18 11.37	
o-Terphenyl	84-15-1	98	%	70-135	04.10.18 11.37	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 05**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-005	Date Collected:	04.06.18 14.29	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.10.18 22.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.10.18 22.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.10.18 22.00	
4-Bromofluorobenzene	460-00-4	92	%	70-130	04.10.18 22.00	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 06**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-006	Date Collected:	04.06.18 14.30	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1590**	24.9	mg/kg	04.10.18 18.47		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 12.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 12.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 12.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 12.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	04.10.18 12.05	
o-Terphenyl	84-15-1	95	%	70-135	04.10.18 12.05	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 06**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-006	Date Collected:	04.06.18 14.30	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.10.18 22.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.10.18 22.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	04.10.18 22.19	
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.10.18 22.19	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 07**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-007	Date Collected:	04.06.18 14.32	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3680**	25.0	mg/kg	04.10.18 19.03		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.10.18 12.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.10.18 12.33	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	04.10.18 12.33	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.10.18 12.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	04.10.18 12.33	
o-Terphenyl	84-15-1	98	%	70-135	04.10.18 12.33	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 07**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-007	Date Collected:	04.06.18 14.32	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.10.18 22.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.18 22.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.10.18 22.37	
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.10.18 22.37	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 08**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-008	Date Collected:	04.06.18 14.33	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2680**	24.9	mg/kg	04.10.18 19.08		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 13.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 13.02	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 13.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 13.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.10.18 13.02	
o-Terphenyl	84-15-1	91	%	70-135	04.10.18 13.02	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 08**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-008	Date Collected:	04.06.18 14.33	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.10.18 22.56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.10.18 22.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.10.18 22.56	
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.10.18 22.56	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 09**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-009	Date Collected:	04.06.18 14.35	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4630**	49.8	mg/kg	04.10.18 19.14		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 13.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 13.30	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 13.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 13.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	04.10.18 13.30	
o-Terphenyl	84-15-1	96	%	70-135	04.10.18 13.30	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 09**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-009	Date Collected:	04.06.18 14.35	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.10.18 23.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.10.18 23.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.10.18 23.16	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.10.18 23.16	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 010**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-010	Date Collected:	04.06.18 14.36	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.17**	5.00	mg/kg	04.10.18 18.26		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	04.10.18 13.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	04.10.18 13.59	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	04.10.18 13.59	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	04.10.18 13.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.10.18 13.59	
o-Terphenyl	84-15-1	89	%	70-135	04.10.18 13.59	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 010**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-010	Date Collected:	04.06.18 14.36	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.10.18 23.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.10.18 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.10.18 23.35	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.10.18 23.35	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 011**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-011	Date Collected:	04.06.18 14.37	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1640**	24.9	mg/kg	04.10.18 19.19		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 14.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 14.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 14.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 14.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.10.18 14.28	
o-Terphenyl	84-15-1	91	%	70-135	04.10.18 14.28	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 011**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-011	Date Collected:	04.06.18 14.37	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.10.18 23.54	U	1
Toluene	108-88-3	**0.00241**	0.00198	mg/kg	04.10.18 23.54		1
Ethylbenzene	100-41-4	**0.0142**	0.00198	mg/kg	04.10.18 23.54		1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.10.18 23.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.10.18 23.54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.10.18 23.54	U	1
Total BTEX		**0.0166**	0.00198	mg/kg	04.10.18 23.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.10.18 23.54	
1,4-Difluorobenzene	540-36-3	93	%	70-130	04.10.18 23.54	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 012**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-012	Date Collected:	04.06.18 14.39	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**88.3**	5.00	mg/kg	04.10.18 19.24		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 14.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 14.57	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 14.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 14.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	04.10.18 14.57	
o-Terphenyl	84-15-1	90	%	70-135	04.10.18 14.57	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 012**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-012	Date Collected:	04.06.18 14.39	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.11.18 00.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.11.18 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.11.18 00.13	
1,4-Difluorobenzene	540-36-3	95	%	70-130	04.11.18 00.13	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 013**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-013	Date Collected:	04.06.18 14.40	Sample Depth:	0 - 5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	04.10.18 11.30	Basis:	Wet Weight
Seq Number:	3046284				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**995**	4.98	mg/kg	04.10.18 19.30		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	04.09.18 15.00	Basis:	Wet Weight
Seq Number:	3046309				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	04.10.18 15.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	04.10.18 15.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	04.10.18 15.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	04.10.18 15.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	04.10.18 15.26	
o-Terphenyl	84-15-1	97	%	70-135	04.10.18 15.26	

Certificate of Analytical Results 581764

LT Environmental, Inc., Arvada, CO

Well 127

Sample Id:	**SS 013**	Matrix:	Soil	Date Received:	04.09.18 08.51
Lab Sample Id:	581764-013	Date Collected:	04.06.18 14.40	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	04.10.18 16.45	Basis:	Wet Weight
Seq Number:	3046285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.11.18 00.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.11.18 00.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.11.18 00.32	
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.11.18 00.32	

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 581764

LT Environmental, Inc.

Well 127

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3046284 — Matrix: Solid — Date Prep: 04.10.18
MB Sample Id: 7642341-1-BLK — LCS Sample Id: 7642341-1-BKS — LCSD Sample Id: 7642341-1-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	244	98	243	97	90-110	0	20	mg/kg	04.10.18 16:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3046284 — Matrix: Soil — Date Prep: 04.10.18
Parent Sample Id: 581763-001 — MS Sample Id: 581763-001 S — MSD Sample Id: 581763-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.8	250	262	100	262	100	90-110	0	20	mg/kg	04.10.18 17:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3046284 — Matrix: Soil — Date Prep: 04.10.18
Parent Sample Id: 581764-010 — MS Sample Id: 581764-010 S — MSD Sample Id: 581764-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.17	250	224	87	217	84	90-110	3	20	mg/kg	04.10.18 18:31	X

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3046309 — Matrix: Solid — Date Prep: 04.09.18
MB Sample Id: 7642334-1-BLK — LCS Sample Id: 7642334-1-BKS — LCSD Sample Id: 7642334-1-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	1060	106	1050	105	70-135	1	20	mg/kg	04.10.18 04:25	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	1080	108	70-135	1	20	mg/kg	04.10.18 04:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		116		114		70-135	%	04.10.18 04:25
o-Terphenyl	105		117		112		70-135	%	04.10.18 04:25

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

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

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

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

QC Summary 581764

LT Environmental, Inc.

Well 127

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3046309 — Matrix: Soil — Date Prep: 04.09.18
Parent Sample Id: 581763-001 — MS Sample Id: 581763-001 S — MSD Sample Id: 581763-001 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	1000	967	97	975	98	70-135	1	20	mg/kg	04.10.18 05:46	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1030	103	70-135	1	20	mg/kg	04.10.18 05:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		110		70-135	%	04.10.18 05:46
o-Terphenyl	107		103		70-135	%	04.10.18 05:46

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3046232 — Matrix: Solid — Date Prep: 04.10.18
MB Sample Id: 7642361-1-BLK — LCS Sample Id: 7642361-1-BKS — LCSD Sample Id: 7642361-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.118	119	0.116	117	70-130	2	35	mg/kg	04.10.18 08:10	
Toluene	<0.00198	0.0990	0.115	116	0.111	112	70-130	4	35	mg/kg	04.10.18 08:10	
Ethylbenzene	<0.00198	0.0990	0.115	116	0.112	113	70-130	3	35	mg/kg	04.10.18 08:10	
m,p-Xylenes	<0.00396	0.198	0.240	121	0.230	116	70-130	4	35	mg/kg	04.10.18 08:10	
o-Xylene	<0.00198	0.0990	0.119	120	0.115	116	70-130	3	35	mg/kg	04.10.18 08:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		102		94		70-130	%	04.10.18 08:10
4-Bromofluorobenzene	81		106		102		70-130	%	04.10.18 08:10

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3046285 — Matrix: Solid — Date Prep: 04.10.18
MB Sample Id: 7642387-1-BLK — LCS Sample Id: 7642387-1-BKS — LCSD Sample Id: 7642387-1-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	0.103	103	0.107	107	70-130	4	35	mg/kg	04.10.18 19:45	
Toluene	<0.00199	0.0996	0.101	101	0.103	103	70-130	2	35	mg/kg	04.10.18 19:45	
Ethylbenzene	<0.00199	0.0996	0.101	101	0.104	104	70-130	3	35	mg/kg	04.10.18 19:45	
m,p-Xylenes	<0.00398	0.199	0.213	107	0.217	109	70-130	2	35	mg/kg	04.10.18 19:45	
o-Xylene	<0.00199	0.0996	0.106	106	0.109	109	70-130	3	35	mg/kg	04.10.18 19:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		89		96		70-130	%	04.10.18 19:45
4-Bromofluorobenzene	80		82		89		70-130	%	04.10.18 19:45

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

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

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

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

QC Summary 581764

LT Environmental, Inc.

Well 127

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3046232 — Matrix: Soil — Date Prep: 04.10.18
Parent Sample Id: 581763-004 — MS Sample Id: 581763-004 S — MSD Sample Id: 581763-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0887	89	0.107	106	70-130	19	35	mg/kg	04.10.18 08:49	
Toluene	<0.00200	0.100	0.0819	82	0.101	100	70-130	21	35	mg/kg	04.10.18 08:49	
Ethylbenzene	<0.00200	0.100	0.0764	76	0.100	99	70-130	27	35	mg/kg	04.10.18 08:49	
m,p-Xylenes	<0.00401	0.200	0.157	79	0.205	101	70-130	27	35	mg/kg	04.10.18 08:49	
o-Xylene	<0.00200	0.100	0.0787	79	0.103	102	70-130	27	35	mg/kg	04.10.18 08:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		108		70-130	%	04.10.18 08:49
4-Bromofluorobenzene	111		111		70-130	%	04.10.18 08:49

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3046285 — Matrix: Soil — Date Prep: 04.10.18
Parent Sample Id: 581764-005 — MS Sample Id: 581764-005 S — MSD Sample Id: 581764-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0910	92	0.105	105	70-130	14	35	mg/kg	04.10.18 20:24	
Toluene	<0.00199	0.0994	0.0870	88	0.100	100	70-130	14	35	mg/kg	04.10.18 20:24	
Ethylbenzene	<0.00199	0.0994	0.0850	86	0.0999	100	70-130	16	35	mg/kg	04.10.18 20:24	
m,p-Xylenes	<0.00398	0.199	0.176	88	0.205	103	70-130	15	35	mg/kg	04.10.18 20:24	
o-Xylene	<0.00199	0.0994	0.0886	89	0.103	103	70-130	15	35	mg/kg	04.10.18 20:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		70-130	%	04.10.18 20:24
4-Bromofluorobenzene	102		110		70-130	%	04.10.18 20:24

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

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

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

Page 863 of 1119

CHAIN OF CUSTODY

2RP- 4625

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 # 581764

Client / Reporting Information

Company Name / Branch: LTE / Permian
Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705
Email: Abaker@ltenv.com | Phone No: 432-704-5178
Project Contact: Adrian Baker
Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: Dell 127 / 30-015-43231
Project Location: NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 30-015-43231

Analytical Information

Blex EPA Method 8021 | TPH EPA Method 8015 | Chloride EPA Method 300.1

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	Blex EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Field Comments
1	SS01	0.5'	4-6-18	14:22	S	1									X	X	X	
2	SS02			14:25											X	X	X	
3	SS03			14:26											X	X	X	
4	SS04			14:28											X	X	X	
5	SS05			14:29											X	X	X	
6	SS06			14:30											X	X	X	
7	SS07			14:32											X	X	X	
8	SS08			14:33											X	X	X	
9	SS09			14:35											X	X	X	
10	SS10			14:36											X	X	X	

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

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:

Temp: 7.5 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 7.5

FED-EX / UPS:

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		4-9-18 8:17	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: x; Cooler Temp.; Thermo. Corr. Factor

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.

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 38 of 40

Page 864 of 1119

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 2 of 2

2RP-4625

Xenco Quote #

Xenco Job # 581764

Client / Reporting Information

Company Name / Branch: LTE / Permian

Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705

Email: Abaker@ltenv.com

Phone No: 432-704-5178

Project Contact: Adrian Baker

Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: Well 127 / 30-015-43231

Project Location: NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: 30-015-43231

Analytical Information

Matrix Codes

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

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH+Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Btex EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Field Comments
1	5511	0.5'	4-11	14:37	S	1									X	X	X	
2	5512	↓	↓	14:39	↓	↓									X	X	X	
3	5513	↓	↓	14:40	↓	↓									X	X	X	
4																		
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
- [x] STANDARD TAT

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:

Temp: 7.3 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 7.5

FED-EX /

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		4-9-18 0:01		2		2
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: x

Cooler Temp. Thermo. Corr. Factor

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.

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 39 of 40

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 04/09/2018 08:51:00 AM

Work Order #: 581764

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)?	7.5
#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: 04/09/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 04/09/2018

Jessica Kramer

Analytical Report 626933

for

LT Environmental, Inc.

Project Manager: Ashley Ager

JRU DI #1 127H

12-JUN-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

12-JUN-19

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

Reference: XENCO Report No(s): **626933**
JRU DI #1 127H
Project Address: Delaware Basin

Ashley Ager:

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) 626933. 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. 626933 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 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	06-03-19 16:00	0.5	626933-001
SS02	S	06-03-19 16:05	0.5	626933-002
SS03	S	06-03-19 16:10	0.5	626933-003
SS04	S	06-03-19 16:15	0.5	626933-004
SS05	S	06-03-19 16:20	0.5	626933-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI #1 127H

Project ID:
Work Order Number(s): *626933*

Report Date: *12-JUN-19*
Date Received: *06/07/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3091974 BTEX by EPA 8021
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected.
Samples affected are: 626931-010 S,626933-005.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 626933

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #1 127H

Project Id:
Contact: Ashley Ager
Project Location: Delaware Basin

Date Received in Lab: Fri Jun-07-19 11:40 am
Report Date: 12-JUN-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	626933-001		626933-002		626933-003		626933-004		626933-005	
	Field Id:	SS01		SS02		SS03		SS04		SS05	
	Depth:	0.5-		0.5-		0.5-		0.5-		0.5-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-03-19 16:00		Jun-03-19 16:05		Jun-03-19 16:10		Jun-03-19 16:15		Jun-03-19 16:20	
BTEX by EPA 8021	*Extracted:*	Jun-11-19 08:30		Jun-11-19 08:30		Jun-11-19 08:30		Jun-11-19 08:30		Jun-11-19 08:30	
	Analyzed:	Jun-11-19 23:32		Jun-11-19 23:51		Jun-12-19 00:10		Jun-12-19 00:29		Jun-12-19 00:48	
	Units/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	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00397	0.00397	<0.00401	0.00401	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	0.00202	0.00200
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	0.00202	0.00200
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	0.00202	0.00200
Chloride by EPA 300	*Extracted:*	Jun-08-19 14:00		Jun-08-19 14:00		Jun-08-19 14:00		Jun-08-19 14:00		Jun-08-19 14:00	
	Analyzed:	Jun-08-19 16:15		Jun-08-19 16:23		Jun-08-19 16:30		Jun-08-19 16:37		Jun-08-19 16:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		73.6	5.05	122	5.00	129	5.03	316	25.0	396	4.97
TPH by SW8015 Mod	*Extracted:*	** ** ** **		** ** ** **		** ** ** **		** ** ** **		Jun-07-19 16:00	
	Analyzed:	Jun-07-19 22:10		Jun-07-19 22:36		Jun-07-19 23:01		Jun-07-19 23:26		Jun-08-19 01:31	
	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	29.3	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	29.3	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	29.3	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-001	Date Collected:	06.03.19 16.00	Sample Depth:	0.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	06.08.19 14.00	Basis:	Wet Weight
Seq Number:	3091691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.6**	5.05	mg/kg	06.08.19 16.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.07.19 11.00	Basis:	Wet Weight
Seq Number:	3091703				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.07.19 22.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.07.19 22.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.07.19 22.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.07.19 22.10	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	06.07.19 22.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	06.07.19 22.10	
o-Terphenyl	84-15-1	96	%	70-135	06.07.19 22.10	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-001	Date Collected:	06.03.19 16.00	Sample Depth:	0.5
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	06.11.19 08.30	Basis:	Wet Weight
Seq Number:	3091974				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.11.19 23.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.11.19 23.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	06.11.19 23.32	
4-Bromofluorobenzene	460-00-4	79	%	70-130	06.11.19 23.32	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-002	Date Collected:	06.03.19 16.05	Sample Depth:	0.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	06.08.19 14.00	Basis:	Wet Weight
Seq Number:	3091691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	5.00	mg/kg	06.08.19 16.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.07.19 11.00	Basis:	Wet Weight
Seq Number:	3091703				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.07.19 22.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.07.19 22.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.07.19 22.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.07.19 22.36	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	06.07.19 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	06.07.19 22.36	
o-Terphenyl	84-15-1	100	%	70-135	06.07.19 22.36	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-002	Date Collected:	06.03.19 16.05	Sample Depth:	0.5
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	06.11.19 08.30	Basis:	Wet Weight
Seq Number:	3091974				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.11.19 23.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.11.19 23.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	70-130	06.11.19 23.51	
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.11.19 23.51	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-003	Date Collected:	06.03.19 16.10	Sample Depth:	0.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	06.08.19 14.00	Basis:	Wet Weight
Seq Number:	3091691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**129**	5.03	mg/kg	06.08.19 16.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.07.19 11.00	Basis:	Wet Weight
Seq Number:	3091703				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.07.19 23.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.07.19 23.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.07.19 23.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.07.19 23.01	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	06.07.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	06.07.19 23.01	
o-Terphenyl	84-15-1	84	%	70-135	06.07.19 23.01	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-003	Date Collected:	06.03.19 16.10	Sample Depth:	0.5
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	06.11.19 08.30	Basis:	Wet Weight
Seq Number:	3091974				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.12.19 00.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.12.19 00.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	06.12.19 00.10	
4-Bromofluorobenzene	460-00-4	90	%	70-130	06.12.19 00.10	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-004	Date Collected:	06.03.19 16.15	Sample Depth:	0.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	06.08.19 14.00	Basis:	Wet Weight
Seq Number:	3091691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**316**	25.0	mg/kg	06.08.19 16.37		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.07.19 11.00	Basis:	Wet Weight
Seq Number:	3091703				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.07.19 23.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**29.3**	15.0	mg/kg	06.07.19 23.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.07.19 23.26	U	1
Total TPH	PHC635	**29.3**	15.0	mg/kg	06.07.19 23.26		1
Total GRO-DRO	PHC628	**29.3**	15.0	mg/kg	06.07.19 23.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	06.07.19 23.26	
o-Terphenyl	84-15-1	85	%	70-135	06.07.19 23.26	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-004	Date Collected:	06.03.19 16.15	Sample Depth:	0.5
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	06.11.19 08.30	Basis:	Wet Weight
Seq Number:	3091974				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.12.19 00.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.12.19 00.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.12.19 00.29	
4-Bromofluorobenzene	460-00-4	85	%	70-130	06.12.19 00.29	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-005	Date Collected:	06.03.19 16.20	Sample Depth:	0.5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	06.08.19 14.00	Basis:	Wet Weight
Seq Number:	3091691				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**396**	4.97	mg/kg	06.08.19 16.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	06.07.19 16.00	Basis:	Wet Weight
Seq Number:	3091704				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	06.08.19 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	06.08.19 01.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	06.08.19 01.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.08.19 01.31	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	06.08.19 01.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.08.19 01.31	
o-Terphenyl	84-15-1	97	%	70-135	06.08.19 01.31	

Certificate of Analytical Results 626933

LT Environmental, Inc., Arvada, CO

JRU DI #1 127H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	06.07.19 11.40
Lab Sample Id:	626933-005	Date Collected:	06.03.19 16.20	Sample Depth:	0.5
Analytical Method:	BTEX by EPA 8021			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	DVM	Date Prep:	06.11.19 08.30	Basis:	Wet Weight
Seq Number:	3091974				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.12.19 00.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.12.19 00.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.12.19 00.48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.12.19 00.48	U	1
o-Xylene	95-47-6	**0.00202**	0.00200	mg/kg	06.12.19 00.48		1
Total Xylenes	1330-20-7	**0.00202**	0.00200	mg/kg	06.12.19 00.48		1
Total BTEX		**0.00202**	0.00200	mg/kg	06.12.19 00.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	59	%	70-130	06.12.19 00.48	**
1,4-Difluorobenzene	540-36-3	102	%	70-130	06.12.19 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 626933

LT Environmental, Inc.

JRU DI #1 127H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091691 — Matrix: Solid — Date Prep: 06.08.19
MB Sample Id: 7679534-1-BLK — LCS Sample Id: 7679534-1-BKS — LCSD Sample Id: 7679534-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	246	98	90-110	0	20	mg/kg	06.08.19 15:03	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091691 — Matrix: Soil — Date Prep: 06.08.19
Parent Sample Id: 626932-003 — MS Sample Id: 626932-003 S — MSD Sample Id: 626932-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	245	250	482	95	483	95	90-110	0	20	mg/kg	06.08.19 15:25	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091691 — Matrix: Soil — Date Prep: 06.08.19
Parent Sample Id: 626962-002 — MS Sample Id: 626962-002 S — MSD Sample Id: 626962-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	251	416	92	418	93	90-110	0	20	mg/kg	06.08.19 17:06	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3091703 — Matrix: Solid — Date Prep: 06.07.19
MB Sample Id: 7679503-1-BLK — LCS Sample Id: 7679503-1-BKS — LCSD Sample Id: 7679503-1-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	993	99	1030	103	70-135	4	20	mg/kg	06.07.19 13:13	
Diesel Range Organics (DRO)	<8.13	1000	1110	111	1030	103	70-135	7	20	mg/kg	06.07.19 13:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		102		102		70-135	%	06.07.19 13:13
o-Terphenyl	76		115		94		70-135	%	06.07.19 13:13

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

QC Summary 626933

LT Environmental, Inc.

JRU DI #1 127H

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3091704 — Matrix: Solid — Date Prep: 06.07.19
MB Sample Id: 7679504-1-BLK — LCS Sample Id: 7679504-1-BKS — LCSD Sample Id: 7679504-1-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)	10.7	1000	1190	119	1190	119	70-135	0	20	mg/kg	06.08.19 00:41	
Diesel Range Organics (DRO)	<8.13	1000	1160	116	1190	119	70-135	3	20	mg/kg	06.08.19 00:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		120		120		70-135	%	06.08.19 00:41
o-Terphenyl	94		121		111		70-135	%	06.08.19 00:41

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3091703 — Matrix: Soil — Date Prep: 06.07.19
Parent Sample Id: 626930-001 — MS Sample Id: 626930-001 S — MSD Sample Id: 626930-001 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)	12.8	999	976	96	982	97	70-135	1	20	mg/kg	06.07.19 14:29	
Diesel Range Organics (DRO)	108	999	973	87	1090	98	70-135	11	20	mg/kg	06.07.19 14:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		102		70-135	%	06.07.19 14:29
o-Terphenyl	87		106		70-135	%	06.07.19 14:29

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3091704 — Matrix: Soil — Date Prep: 06.07.19
Parent Sample Id: 626933-005 — MS Sample Id: 626933-005 S — MSD Sample Id: 626933-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	13.6	997	1160	115	1200	119	70-135	3	20	mg/kg	06.08.19 01:56	
Diesel Range Organics (DRO)	8.96	997	1110	110	1150	114	70-135	4	20	mg/kg	06.08.19 01:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		119		70-135	%	06.08.19 01:56
o-Terphenyl	111		113		70-135	%	06.08.19 01:56

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 626933

LT Environmental, Inc.

JRU DI #1 127H

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

Seq Number: 3091974 Matrix: Solid Date Prep: 06.11.19

MB Sample Id: 7679699-1-BLK LCS Sample Id: 7679699-1-BKS LCSD Sample Id: 7679699-1-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	0.0956	96	0.103	102	70-130	7	35	mg/kg	06.11.19 17:05	
Toluene	<0.00200	0.100	0.0910	91	0.0967	96	70-130	6	35	mg/kg	06.11.19 17:05	
Ethylbenzene	<0.00200	0.100	0.0991	99	0.104	103	70-130	5	35	mg/kg	06.11.19 17:05	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.216	107	70-130	6	35	mg/kg	06.11.19 17:05	
o-Xylene	<0.00200	0.100	0.102	102	0.108	107	70-130	6	35	mg/kg	06.11.19 17:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		103		103		70-130	%	06.11.19 17:05
4-Bromofluorobenzene	76		107		96		70-130	%	06.11.19 17:05

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

Seq Number: 3091974 Matrix: Soil Date Prep: 06.11.19

Parent Sample Id: 626931-010 MS Sample Id: 626931-010 S MSD Sample Id: 626931-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0871	87	0.0992	100	70-130	13	35	mg/kg	06.11.19 17:44	
Toluene	<0.000454	0.0996	0.0905	91	0.0943	95	70-130	4	35	mg/kg	06.11.19 17:44	
Ethylbenzene	<0.000563	0.0996	0.101	101	0.104	105	70-130	3	35	mg/kg	06.11.19 17:44	
m,p-Xylenes	<0.00101	0.199	0.205	103	0.213	107	70-130	4	35	mg/kg	06.11.19 17:44	
o-Xylene	0.000549	0.0996	0.0976	97	0.104	104	70-130	6	35	mg/kg	06.11.19 17:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		104		70-130	%	06.11.19 17:44
4-Bromofluorobenzene	63	**	91		70-130	%	06.11.19 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

Page 885 of 1119

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: 1026933

Page 1 of 1

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

Work Order Comments

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

Project Name:	JRU DI #1 127H
Project Number:	
P.O. Number:	
Sampler's Name:	Robert McAfee

Turn Around
Routine ☐
Rush: 3 day
Due Date:

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.5 10.3	Thermometer ID	RE
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
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 0=8021)	Chloride (EPA 300.0)
SS01	S	06/03/19	1600	0.5	1	X	X	X
SS02			1605			X	X	X
SS03			1610			X	X	X
SS04			1615			X	X	X
SS05			1620			X	X	X

Work Order Notes

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

Sample Comments

SS01: 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

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 Robert McAfee		06-06-19 15:30	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 20 of 21

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06/07/2019 11:40:00 AM

Work Order #: 626933

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)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#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: Katie Lowe Date: 06/07/2019

Checklist reviewed by: Jessica Kramer Date: 06/07/2019

Analytical Report 631327

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI #127

29-JUL-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

29-JUL-19

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

Reference: XENCO Report No(s): **631327**
JRU DI #127
Project Address: Delaware Basin

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) 631327. 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. 631327 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 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07-15-19 09:15	1 ft	631327-001
PH01A	S	07-15-19 10:00	4 ft	631327-002
PH02	S	07-15-19 10:30	2 ft	631327-003
PH02A	S	07-15-19 11:00	4 ft	631327-004
PH03	S	07-15-19 11:15	1 ft	631327-005
PH03A	S	07-15-19 12:00	4 ft	631327-006
PH04	S	07-15-19 12:10	1 ft	631327-007
PH04A	S	07-15-19 12:40	4 ft	631327-008
PH05	S	07-15-19 12:50	1 ft	631327-009
PH05A	S	07-15-19 13:15	4 ft	631327-010
PH06	S	07-15-19 13:20	1 ft	631327-011
PH06A	S	07-15-19 13:45	4 ft	631327-012
PH07	S	07-15-19 14:00	1 ft	631327-013
PH07A	S	07-15-19 14:15	4 ft	631327-014
PH08	S	07-15-19 14:30	1 ft	631327-015
PH08A	S	07-15-19 14:34	4 ft	631327-016
PH10	S	07-16-19 09:35	1 ft	631327-017
PH10A	S	07-16-19 09:55	4 ft	631327-018
PH11	S	07-16-19 10:55	2 ft	631327-019
PH11A	S	07-16-19 11:10	4 ft	631327-020
PH12	S	07-16-19 11:15	1 ft	631327-021
PH12A	S	07-16-19 11:45	4 ft	631327-022
PH13	S	07-16-19 12:15	3 ft	631327-023
PH13A	S	07-16-19 12:20	4 ft	631327-024
PH14	S	07-16-19 12:50	3 ft	631327-025
PH14A	S	07-16-19 13:00	4 ft	631327-026
PH15	S	07-16-19 13:35	2 ft	631327-027
PH15A	S	07-16-19 14:00	4 ft	631327-028
PH16	S	07-16-19 14:30	2 ft	631327-029
PH16A	S	07-17-19 15:00	4 ft	631327-030
PH17	S	07-17-19 08:45	2 ft	631327-031
PH17A	S	07-17-19 09:15	4 ft	631327-032
PH18	S	07-17-19 09:30	1 ft	631327-033
PH18A	S	07-17-19 10:15	4 ft	631327-034

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI #127

Project ID:
Work Order Number(s): *631327*

Report Date: *29-JUL-19*
Date Received: *07/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096313 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3096390 BTEX by EPA 8021B
Lab Sample ID 631327-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 631327-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.
The Laboratory Control Sample for m,p-Xylenes, Ethylbenzene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 631327-017,631327-020,631327-019.

Batch: LBA-3096593 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682825-1-BLK,631327-002.

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am

Report Date: 29-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-001		631327-002		631327-003		631327-004		631327-005		631327-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	1- ft		4- ft		2- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-15-19 09:15		Jul-15-19 10:00		Jul-15-19 10:30		Jul-15-19 11:00		Jul-15-19 11:15		Jul-15-19 12:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56	
	Analyzed:	Jul-24-19 14:47		Jul-24-19 03:57		Jul-24-19 15:07		Jul-24-19 17:25		Jul-24-19 04:58		Jul-24-19 17:45	
	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	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00396	0.00396	<0.00399	0.00399	<0.00397	0.00397	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 15:45		Jul-19-19 15:45		Jul-22-19 15:45		Jul-22-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45	
	Analyzed:	Jul-19-19 18:53		Jul-19-19 18:27		Jul-22-19 18:27		Jul-22-19 18:33		Jul-19-19 19:20		Jul-19-19 19:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		96.7	49.9	<4.95	4.95	23.5	4.95	6.81	5.02	116	50.4	46.4	5.05
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00	
	Analyzed:	Jul-25-19 13:39		Jul-25-19 14:52		Jul-25-19 15:16		Jul-25-19 15:40		Jul-25-19 16:04		Jul-25-19 16:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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)		20.1	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0
Total TPH		20.1	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total GRO-DRO		20.1	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am

Report Date: 29-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-007		631327-008		631327-009		631327-010		631327-011		631327-012	
	Field Id:	PH04		PH04A		PH05		PH05A		PH06		PH06A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-15-19 12:10		Jul-15-19 12:40		Jul-15-19 12:50		Jul-15-19 13:15		Jul-15-19 13:20		Jul-15-19 13:45	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56	
	Analyzed:	Jul-24-19 05:38		Jul-24-19 05:58		Jul-24-19 06:18		Jul-24-19 06:39		Jul-24-19 07:57		Jul-24-19 18:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
m,p-Xylenes		<0.00401	0.00401	<0.00397	0.00397	<0.00402	0.00402	<0.00397	0.00397	<0.00403	0.00403	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00201	0.00201
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 15:45		Jul-22-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45	
	Analyzed:	Jul-19-19 19:31		Jul-22-19 18:38		Jul-19-19 19:41		Jul-19-19 19:57		Jul-19-19 20:03		Jul-19-19 20:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		128	25.3	11.8	4.95	31.4	4.96	<5.00	5.00	94.0	5.03	<4.99	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00	
	Analyzed:	Jul-25-19 16:52		Jul-25-19 17:16		Jul-25-19 17:41		Jul-25-19 18:05		Jul-25-19 18:53		Jul-25-19 19:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am

Report Date: 29-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-013		631327-014		631327-015		631327-016		631327-017		631327-018	
	Field Id:	PH07		PH07A		PH08		PH08A		PH10		PH10A	
	Depth:	1- ft		4- ft		1- ft		4- ft		1- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-15-19 14:00		Jul-15-19 14:15		Jul-15-19 14:30		Jul-15-19 14:34		Jul-16-19 09:35		Jul-16-19 09:55	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:56	
	Analyzed:	Jul-24-19 18:25		Jul-24-19 18:45		Jul-24-19 19:06		Jul-24-19 09:45		Jul-24-19 15:27		Jul-24-19 13:47	
	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	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00198	0.00198	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00198	0.00198	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00397	0.00397	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398
o-Xylene		<0.00198	0.00198	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00198	0.00198	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00198	0.00198	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45		Jul-19-19 15:45	
	Analyzed:	Jul-19-19 20:24		Jul-19-19 20:30		Jul-19-19 20:35		Jul-19-19 20:40		Jul-19-19 20:46		Jul-19-19 20:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<5.02	5.02	<4.98	4.98	11.3	5.00	62.5	50.0	5.18	5.00	<5.01	5.01
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00		Jul-25-19 10:00	
	Analyzed:	Jul-25-19 19:41		Jul-25-19 20:05		Jul-25-19 20:28		Jul-25-19 20:52		Jul-25-19 21:16		Jul-25-19 21:39	
	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

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am

Report Date: 29-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-019		631327-020		631327-021		631327-022		631327-023		631327-024	
	Field Id:	PH11		PH11A		PH12		PH12A		PH13		PH13A	
	Depth:	2- ft		4- ft		1- ft		4- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-16-19 10:55		Jul-16-19 11:10		Jul-16-19 11:15		Jul-16-19 11:45		Jul-16-19 12:15		Jul-16-19 12:20	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:56		Jul-22-19 11:56		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13	
	Analyzed:	Jul-24-19 14:07		Jul-24-19 14:27		Jul-23-19 20:39		Jul-23-19 20:59		Jul-23-19 21:19		Jul-23-19 05:05	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15	
	Analyzed:	Jul-20-19 03:03		Jul-20-19 03:09		Jul-20-19 03:16		Jul-20-19 03:22		Jul-20-19 03:41		Jul-20-19 03:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		845	5.02	<5.00	5.00	37.7	4.98	10.5	5.05	165	5.05	531	5.05
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-25-19 10:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00	
	Analyzed:	Jul-25-19 22:03		Jul-26-19 12:54		Jul-26-19 14:06		Jul-26-19 14:30		Jul-26-19 14:55		Jul-26-19 15:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:

Contact: Dan Moir

Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am

Report Date: 29-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-025		631327-026		631327-027		631327-028		631327-029		631327-030	
	Field Id:	PH14		PH14A		PH15		PH15A		PH16		PH16A	
	Depth:	3- ft		4- ft		2- ft		4- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-16-19 12:50		Jul-16-19 13:00		Jul-16-19 13:35		Jul-16-19 14:00		Jul-16-19 14:30		Jul-17-19 15:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13	
	Analyzed:	Jul-23-19 05:25		Jul-23-19 05:45		Jul-23-19 21:39		Jul-23-19 21:59		Jul-23-19 22:20		Jul-23-19 07:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00404	0.00404	<0.00397	0.00397	<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-22-19 15:45	
	Analyzed:	Jul-20-19 03:54		Jul-20-19 04:00		Jul-20-19 04:06		Jul-20-19 04:13		Jul-20-19 04:32		Jul-22-19 18:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		43.3	5.00	103	5.00	535	5.04	<5.00	5.00	1150	50.3	8.93	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-26-19 08:00		Jul-26-19 08:00		Jul-26-19 08:00		Jul-24-19 08:00		Jul-24-19 08:00		Jul-24-19 08:00	
	Analyzed:	Jul-26-19 15:43		Jul-26-19 16:07		Jul-26-19 16:32		Jul-24-19 18:06		Jul-24-19 18:30		Jul-24-19 18:55	
	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	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	16.8	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	16.8	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	16.8	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631327

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #127

Project Id:
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Thu Jul-18-19 08:35 am
Report Date: 29-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631327-031		631327-032		631327-033		631327-034					
	Field Id:	PH17		PH17A		PH18		PH18A					
	Depth:	2- ft		4- ft		1- ft		4- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jul-17-19 08:45		Jul-17-19 09:15		Jul-17-19 09:30		Jul-17-19 10:15					
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13		Jul-22-19 11:13					
	Analyzed:	Jul-23-19 23:38		Jul-23-19 23:58		Jul-24-19 00:18		Jul-24-19 00:38					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00403	0.00403				
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202				
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15		Jul-19-19 16:15					
	Analyzed:	Jul-20-19 04:57		Jul-20-19 05:03		Jul-20-19 05:10		Jul-20-19 05:16					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		117	4.99	<4.95	4.95	125	50.4	<5.01	5.01				
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-24-19 08:00		Jul-24-19 08:00		Jul-24-19 08:00		Jul-24-19 08:00					
	Analyzed:	Jul-24-19 19:19		Jul-24-19 19:43		Jul-24-19 20:08		Jul-24-19 20:32					
	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				

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

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-001	Date Collected:	07.15.19 09.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**96.7**	49.9	mg/kg	07.19.19 18.53		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 13.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	**20.1**	15.0	mg/kg	07.25.19 13.39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 13.39	U	1
Total TPH	PHC635	**20.1**	15.0	mg/kg	07.25.19 13.39		1
Total GRO-DRO	PHC628	**20.1**	15.0	mg/kg	07.25.19 13.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.25.19 13.39	
o-Terphenyl	84-15-1	83	%	70-135	07.25.19 13.39	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-001	Date Collected:	07.15.19 09.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 14.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 14.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.24.19 14.47	
1,4-Difluorobenzene	540-36-3	122	%	70-130	07.24.19 14.47	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-002	Date Collected:	07.15.19 10.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.19.19 18.27	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 14.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 14.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 14.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 14.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 14.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.25.19 14.52	
o-Terphenyl	84-15-1	66	%	70-135	07.25.19 14.52	**

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-002	Date Collected:	07.15.19 10.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 03.57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 03.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.24.19 03.57	
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.24.19 03.57	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-003	Date Collected:	07.15.19 10.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 15.45	Basis:	Wet Weight
Seq Number:	3096131			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.5**	4.95	mg/kg	07.22.19 18.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 15.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 15.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 15.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 15.16	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.25.19 15.16	
o-Terphenyl	84-15-1	89	%	70-135	07.25.19 15.16	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-003	Date Collected:	07.15.19 10.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.24.19 15.07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.19 15.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.24.19 15.07	
1,4-Difluorobenzene	540-36-3	122	%	70-130	07.24.19 15.07	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-004	Date Collected:	07.15.19 11.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 15.45	Basis:	Wet Weight
Seq Number:	3096131			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.81**	5.02	mg/kg	07.22.19 18.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 15.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 15.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 15.40	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 15.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.25.19 15.40	
o-Terphenyl	84-15-1	74	%	70-135	07.25.19 15.40	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-004	Date Collected:	07.15.19 11.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.24.19 17.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 17.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.24.19 17.25	
1,4-Difluorobenzene	540-36-3	122	%	70-130	07.24.19 17.25	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-005	Date Collected:	07.15.19 11.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**116**	50.4	mg/kg	07.19.19 19.20		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.25.19 16.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.25.19 16.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.25.19 16.04	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.25.19 16.04	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.25.19 16.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.25.19 16.04	
o-Terphenyl	84-15-1	75	%	70-135	07.25.19 16.04	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-005	Date Collected:	07.15.19 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.24.19 04.58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.19 04.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.24.19 04.58	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.24.19 04.58	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id: **PH03A** Matrix: Soil Date Received:07.18.19 08.35
Lab Sample Id: 631327-006 Date Collected: 07.15.19 12.00 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.19.19 15.45 Basis: Wet Weight
Seq Number: 3096026 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**46.4**	5.05	mg/kg	07.19.19 19.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.25.19 10.00 Basis: Wet Weight
Seq Number: 3096593 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	07.25.19 16.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 16.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 16.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 16.28	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 16.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.25.19 16.28	
o-Terphenyl	84-15-1	88	%	70-135	07.25.19 16.28	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-006	Date Collected:	07.15.19 12.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 17.45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 17.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.24.19 17.45	
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.24.19 17.45	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-007	Date Collected:	07.15.19 12.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**128**	25.3	mg/kg	07.19.19 19.31		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 16.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 16.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 16.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 16.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 16.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.25.19 16.52	
o-Terphenyl	84-15-1	76	%	70-135	07.25.19 16.52	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-007	Date Collected:	07.15.19 12.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.24.19 05.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 05.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.24.19 05.38	
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 05.38	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-008	Date Collected:	07.15.19 12.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 15.45	Basis:	Wet Weight
Seq Number:	3096131			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.8**	4.95	mg/kg	07.22.19 18.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 17.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 17.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 17.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 17.16	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 17.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	07.25.19 17.16	
o-Terphenyl	84-15-1	74	%	70-135	07.25.19 17.16	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-008	Date Collected:	07.15.19 12.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.24.19 05.58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.19 05.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.24.19 05.58	
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.24.19 05.58	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-009	Date Collected:	07.15.19 12.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.4**	4.96	mg/kg	07.19.19 19.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 17.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 17.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 17.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 17.41	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 17.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.25.19 17.41	
o-Terphenyl	84-15-1	84	%	70-135	07.25.19 17.41	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-009	Date Collected:	07.15.19 12.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 06.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 06.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.24.19 06.18	
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.24.19 06.18	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-010	Date Collected:	07.15.19 13.15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.19.19 19.57	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 18.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 18.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 18.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 18.05	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.25.19 18.05	
o-Terphenyl	84-15-1	74	%	70-135	07.25.19 18.05	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-010	Date Collected:	07.15.19 13.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.24.19 06.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.19 06.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.24.19 06.39	
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.24.19 06.39	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-011	Date Collected:	07.15.19 13.20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**94.0**	5.03	mg/kg	07.19.19 20.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 18.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 18.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 18.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 18.53	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 18.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	07.25.19 18.53	
o-Terphenyl	84-15-1	78	%	70-135	07.25.19 18.53	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-011	Date Collected:	07.15.19 13.20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.24.19 07.57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.24.19 07.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.24.19 07.57	
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.24.19 07.57	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-012	Date Collected:	07.15.19 13.45	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	07.19.19 20.19	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 19.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 19.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 19.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 19.17	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.25.19 19.17	
o-Terphenyl	84-15-1	73	%	70-135	07.25.19 19.17	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-012	Date Collected:	07.15.19 13.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 18.05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.24.19 18.05	
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.24.19 18.05	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-013	Date Collected:	07.15.19 14.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	07.19.19 20.24	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 19.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 19.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 19.41	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.25.19 19.41	
o-Terphenyl	84-15-1	70	%	70-135	07.25.19 19.41	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-013	Date Collected:	07.15.19 14.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.24.19 18.25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.24.19 18.25	
1,4-Difluorobenzene	540-36-3	121	%	70-130	07.24.19 18.25	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id: **PH07A** Matrix: Soil Date Received:07.18.19 08.35
Lab Sample Id: 631327-014 Date Collected: 07.15.19 14.15 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.19.19 15.45 Basis: Wet Weight
Seq Number: 3096026 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	07.19.19 20.30	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.25.19 10.00 Basis: Wet Weight
Seq Number: 3096593 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	07.25.19 20.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 20.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 20.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 20.05	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.25.19 20.05	
o-Terphenyl	84-15-1	86	%	70-135	07.25.19 20.05	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-014	Date Collected:	07.15.19 14.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 18.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.24.19 18.45	
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.24.19 18.45	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-015	Date Collected:	07.15.19 14.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.3**	5.00	mg/kg	07.19.19 20.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 20.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 20.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 20.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 20.28	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 20.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.25.19 20.28	
o-Terphenyl	84-15-1	93	%	70-135	07.25.19 20.28	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-015	Date Collected:	07.15.19 14.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 19.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.24.19 19.06	
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.24.19 19.06	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-016	Date Collected:	07.15.19 14.34	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.5**	50.0	mg/kg	07.19.19 20.40		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 20.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 20.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 20.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 20.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 20.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	07.25.19 20.52	
o-Terphenyl	84-15-1	80	%	70-135	07.25.19 20.52	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-016	Date Collected:	07.15.19 14.34	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 09.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 09.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	07.24.19 09.45	
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.24.19 09.45	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-017	Date Collected:	07.16.19 09.35	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.18**	5.00	mg/kg	07.19.19 20.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 21.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 21.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 21.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 21.16	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 21.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	07.25.19 21.16	
o-Terphenyl	84-15-1	83	%	70-135	07.25.19 21.16	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-017	Date Collected:	07.16.19 09.35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 15.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 15.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	144	%	70-130	07.24.19 15.27	**
1,4-Difluorobenzene	540-36-3	106	%	70-130	07.24.19 15.27	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-018	Date Collected:	07.16.19 09.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 15.45	Basis:	Wet Weight
Seq Number:	3096026			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	07.19.19 20.51	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 21.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 21.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 21.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 21.39	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 21.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.25.19 21.39	
o-Terphenyl	84-15-1	90	%	70-135	07.25.19 21.39	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-018	Date Collected:	07.16.19 09.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 13.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 13.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.24.19 13.47	
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.24.19 13.47	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-019	Date Collected:	07.16.19 10.55	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**845**	5.02	mg/kg	07.20.19 03.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 10.00	Basis:	Wet Weight
Seq Number:	3096593			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	07.25.19 22.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 22.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 22.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 22.03	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 22.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.25.19 22.03	
o-Terphenyl	84-15-1	96	%	70-135	07.25.19 22.03	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH11**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-019	Date Collected:	07.16.19 10.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.24.19 14.07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.24.19 14.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.24.19 14.07	
4-Bromofluorobenzene	460-00-4	131	%	70-130	07.24.19 14.07	**

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-020	Date Collected:	07.16.19 11.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.20.19 03.09	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 12.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 12.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 12.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 12.54	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 12.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	07.26.19 12.54	
o-Terphenyl	84-15-1	80	%	70-135	07.26.19 12.54	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH11A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-020	Date Collected:	07.16.19 11.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.56	Basis:	Wet Weight
Seq Number:	3096390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.19 14.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.19 14.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	142	%	70-130	07.24.19 14.27	**
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.24.19 14.27	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-021	Date Collected:	07.16.19 11.15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.7**	4.98	mg/kg	07.20.19 03.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.26.19 14.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.26.19 14.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.26.19 14.06	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.26.19 14.06	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.26.19 14.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.26.19 14.06	
o-Terphenyl	84-15-1	78	%	70-135	07.26.19 14.06	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH12**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-021	Date Collected:	07.16.19 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.19 20.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.19 20.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	07.23.19 20.39	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.23.19 20.39	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-022	Date Collected:	07.16.19 11.45	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.5**	5.05	mg/kg	07.20.19 03.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 14.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 14.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 14.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 14.30	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 14.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	07.26.19 14.30	
o-Terphenyl	84-15-1	71	%	70-135	07.26.19 14.30	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH12A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-022	Date Collected:	07.16.19 11.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.23.19 20.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.19 20.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.23.19 20.59	
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.23.19 20.59	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-023	Date Collected:	07.16.19 12.15	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**165**	5.05	mg/kg	07.20.19 03.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 14.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 14.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 14.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 14.55	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 14.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.26.19 14.55	
o-Terphenyl	84-15-1	79	%	70-135	07.26.19 14.55	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH13**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-023	Date Collected:	07.16.19 12.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.19 21.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.19 21.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.23.19 21.19	
1,4-Difluorobenzene	540-36-3	119	%	70-130	07.23.19 21.19	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-024	Date Collected:	07.16.19 12.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**531**	5.05	mg/kg	07.20.19 03.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 15.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 15.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 15.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 15.19	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 15.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	07.26.19 15.19	
o-Terphenyl	84-15-1	70	%	70-135	07.26.19 15.19	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH13A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-024	Date Collected:	07.16.19 12.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.19 05.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.19 05.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.23.19 05.05	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.23.19 05.05	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id: **PH14** Matrix: Soil Date Received:07.18.19 08.35
Lab Sample Id: 631327-025 Date Collected: 07.16.19 12.50 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 07.19.19 16.15 Basis: Wet Weight
Seq Number: 3096030 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.3**	5.00	mg/kg	07.20.19 03.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: DVM % Moisture:
Analyst: ARM Date Prep: 07.26.19 08.00 Basis: Wet Weight
Seq Number: 3096711 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	07.26.19 15.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 15.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 15.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 15.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 15.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.26.19 15.43	
o-Terphenyl	84-15-1	71	%	70-135	07.26.19 15.43	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH14**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-025	Date Collected:	07.16.19 12.50	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.19 05.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.19 05.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.23.19 05.25	
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.23.19 05.25	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-026	Date Collected:	07.16.19 13.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**103**	5.00	mg/kg	07.20.19 04.00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			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	07.26.19 16.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**16.8**	15.0	mg/kg	07.26.19 16.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 16.07	U	1
Total TPH	PHC635	**16.8**	15.0	mg/kg	07.26.19 16.07		1
Total GRO-DRO	PHC628	**16.8**	15.0	mg/kg	07.26.19 16.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.26.19 16.07	
o-Terphenyl	84-15-1	71	%	70-135	07.26.19 16.07	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH14A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-026	Date Collected:	07.16.19 13.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.23.19 05.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.23.19 05.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	07.23.19 05.45	
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.23.19 05.45	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-027	Date Collected:	07.16.19 13.35	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**535**	5.04	mg/kg	07.20.19 04.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.26.19 08.00	Basis:	Wet Weight
Seq Number:	3096711			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.26.19 16.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.26.19 16.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.26.19 16.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.26.19 16.32	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.26.19 16.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.26.19 16.32	
o-Terphenyl	84-15-1	84	%	70-135	07.26.19 16.32	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH15**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-027	Date Collected:	07.16.19 13.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.23.19 21.39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.23.19 21.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	07.23.19 21.39	
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.23.19 21.39	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-028	Date Collected:	07.16.19 14.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.20.19 04.13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 18.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 18.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 18.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 18.06	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 18.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.24.19 18.06	
o-Terphenyl	84-15-1	76	%	70-135	07.24.19 18.06	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH15A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-028	Date Collected:	07.16.19 14.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.23.19 21.59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.23.19 21.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.23.19 21.59	
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.23.19 21.59	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH16**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-029	Date Collected:	07.16.19 14.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1150**	50.3	mg/kg	07.20.19 04.32		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 18.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 18.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 18.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 18.30	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 18.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	07.24.19 18.30	
o-Terphenyl	84-15-1	77	%	70-135	07.24.19 18.30	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH16**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-029	Date Collected:	07.16.19 14.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.23.19 22.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.19 22.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.23.19 22.20	
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.23.19 22.20	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH16A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-030	Date Collected:	07.17.19 15.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 15.45	Basis:	Wet Weight
Seq Number:	3096131			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.93**	4.99	mg/kg	07.22.19 18.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 18.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 18.55	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.24.19 18.55	
o-Terphenyl	84-15-1	73	%	70-135	07.24.19 18.55	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH16A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-030	Date Collected:	07.17.19 15.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.19 07.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.19 07.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.23.19 07.05	
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.23.19 07.05	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-031	Date Collected:	07.17.19 08.45	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**117**	4.99	mg/kg	07.20.19 04.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 19.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 19.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 19.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 19.19	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 19.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.24.19 19.19	
o-Terphenyl	84-15-1	70	%	70-135	07.24.19 19.19	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH17**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-031	Date Collected:	07.17.19 08.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.23.19 23.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.23.19 23.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.23.19 23.38	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.23.19 23.38	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-032	Date Collected:	07.17.19 09.15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	07.20.19 05.03	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 19.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 19.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 19.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 19.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 19.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	07.24.19 19.43	
o-Terphenyl	84-15-1	77	%	70-135	07.24.19 19.43	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH17A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-032	Date Collected:	07.17.19 09.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.19 23.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.19 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.23.19 23.58	
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.23.19 23.58	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-033	Date Collected:	07.17.19 09.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**125**	50.4	mg/kg	07.20.19 05.10		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 20.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 20.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 20.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 20.08	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 20.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.24.19 20.08	
o-Terphenyl	84-15-1	70	%	70-135	07.24.19 20.08	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH18**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-033	Date Collected:	07.17.19 09.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.24.19 00.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.24.19 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.24.19 00.18	
1,4-Difluorobenzene	540-36-3	118	%	70-130	07.24.19 00.18	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-034	Date Collected:	07.17.19 10.15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.19.19 16.15	Basis:	Wet Weight
Seq Number:	3096030			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	07.20.19 05.16	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 08.00	Basis:	Wet Weight
Seq Number:	3096438			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	07.24.19 20.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.24.19 20.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 20.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.24.19 20.32	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.24.19 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.24.19 20.32	
o-Terphenyl	84-15-1	70	%	70-135	07.24.19 20.32	

Certificate of Analytical Results 631327

LT Environmental, Inc., Arvada, CO

JRU DI #127

Sample Id:	**PH18A**	Matrix:	Soil	Date Received:	07.18.19 08.35
Lab Sample Id:	631327-034	Date Collected:	07.17.19 10.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.22.19 11.13	Basis:	Wet Weight
Seq Number:	3096313			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.24.19 00.38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.24.19 00.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	07.24.19 00.38	
4-Bromofluorobenzene	460-00-4	116	%	70-130	07.24.19 00.38	

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 631327

LT Environmental, Inc.

JRU DI #127

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096026 — Matrix: Solid — Date Prep: 07.19.19
MB Sample Id: 7682396-1-BLK — LCS Sample Id: 7682396-1-BKS — LCSD Sample Id: 7682396-1-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	256	102	257	103	90-110	0	20	mg/kg	07.19.19 18:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096030 — Matrix: Solid — Date Prep: 07.19.19
MB Sample Id: 7682399-1-BLK — LCS Sample Id: 7682399-1-BKS — LCSD Sample Id: 7682399-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	251	100	253	101	90-110	1	20	mg/kg	07.20.19 02:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Solid — Date Prep: 07.22.19
MB Sample Id: 7682539-1-BLK — LCS Sample Id: 7682539-1-BKS — LCSD Sample Id: 7682539-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	248	99	244	98	90-110	2	20	mg/kg	07.22.19 17:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096026 — Matrix: Soil — Date Prep: 07.19.19
Parent Sample Id: 631327-002 — MS Sample Id: 631327-002 S — MSD Sample Id: 631327-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.23	248	259	104	267	107	90-110	3	20	mg/kg	07.19.19 18:32	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096026 — Matrix: Soil — Date Prep: 07.19.19
Parent Sample Id: 631327-009 — MS Sample Id: 631327-009 S — MSD Sample Id: 631327-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	31.4	248	292	105	295	106	90-110	1	20	mg/kg	07.19.19 19:47	

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

QC Summary 631327

LT Environmental, Inc.

JRU DI #127

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096030 — Matrix: Soil — Date Prep: 07.19.19
Parent Sample Id: 631327-028 — MS Sample Id: 631327-028 S — MSD Sample Id: 631327-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.99	250	263	103	264	104	90-110	0	20	mg/kg	07.20.19 04:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096030 — Matrix: Soil — Date Prep: 07.19.19
Parent Sample Id: 631573-002 — MS Sample Id: 631573-002 S — MSD Sample Id: 631573-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.8	248	274	103	276	104	90-110	1	20	mg/kg	07.20.19 02:51	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631394-001 — MS Sample Id: 631394-001 S — MSD Sample Id: 631394-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.2	248	275	104	272	103	90-110	1	20	mg/kg	07.22.19 17:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631517-001 — MS Sample Id: 631517-001 S — MSD Sample Id: 631517-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	215	251	469	101	466	100	90-110	1	20	mg/kg	07.22.19 18:54	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096438 — Matrix: Solid — Date Prep: 07.24.19
MB Sample Id: 7682725-1-BLK — LCS Sample Id: 7682725-1-BKS — LCSD Sample Id: 7682725-1-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	959	96	988	99	70-135	3	20	mg/kg	07.24.19 11:21	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	1100	110	70-135	4	20	mg/kg	07.24.19 11:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		93		91		70-135	%	07.24.19 11:21
o-Terphenyl	92		99		101		70-135	%	07.24.19 11:21

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 631327

LT Environmental, Inc.

JRU DI #127

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096593 — Matrix: Solid — Date Prep: 07.25.19
MB Sample Id: 7682825-1-BLK — LCS Sample Id: 7682825-1-BKS — LCSD Sample Id: 7682825-1-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	897	90	868	87	70-135	3	20	mg/kg	07.25.19 12:51	
Diesel Range Organics (DRO)	<8.13	1000	885	89	917	92	70-135	4	20	mg/kg	07.25.19 12:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		79		78		70-135	%	07.25.19 12:51
o-Terphenyl	66	**	83		79		70-135	%	07.25.19 12:51

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096711 — Matrix: Solid — Date Prep: 07.26.19
MB Sample Id: 7682976-1-BLK — LCS Sample Id: 7682976-1-BKS — LCSD Sample Id: 7682976-1-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	846	85	70-135	7	20	mg/kg	07.26.19 12:06	
Diesel Range Organics (DRO)	<8.13	1000	1050	105	988	99	70-135	6	20	mg/kg	07.26.19 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	78		89		76		70-135	%	07.26.19 12:06
o-Terphenyl	82		103		90		70-135	%	07.26.19 12:06

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096438 — Matrix: Soil — Date Prep: 07.24.19
Parent Sample Id: 631065-001 — MS Sample Id: 631065-001 S — MSD Sample Id: 631065-001 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)	9.48	997	993	99	1050	104	70-135	6	20	mg/kg	07.24.19 12:32	
Diesel Range Organics (DRO)	11.0	997	1110	110	1170	116	70-135	5	20	mg/kg	07.24.19 12:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		99		70-135	%	07.24.19 12:32
o-Terphenyl	99		104		70-135	%	07.24.19 12:32

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

QC Summary 631327

LT Environmental, Inc.

JRU DI #127

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096593 — Matrix: Soil — Date Prep: 07.25.19
Parent Sample Id: 631327-001 — MS Sample Id: 631327-001 S — MSD Sample Id: 631327-001 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)	8.72	997	916	91	896	89	70-135	2	20	mg/kg	07.25.19 14:03	
Diesel Range Organics (DRO)	20.1	997	960	94	952	93	70-135	1	20	mg/kg	07.25.19 14:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	75		73		70-135	%	07.25.19 14:03
o-Terphenyl	81		79		70-135	%	07.25.19 14:03

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096711 — Matrix: Soil — Date Prep: 07.26.19
Parent Sample Id: 631327-020 — MS Sample Id: 631327-020 S — MSD Sample Id: 631327-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	10.1	997	906	90	930	92	70-135	3	20	mg/kg	07.26.19 13:18	
Diesel Range Organics (DRO)	<8.10	997	1030	103	1050	105	70-135	2	20	mg/kg	07.26.19 13:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		80		70-135	%	07.26.19 13:18
o-Terphenyl	82		82		70-135	%	07.26.19 13:18

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096313 — Matrix: Solid — Date Prep: 07.22.19
MB Sample Id: 7682519-1-BLK — LCS Sample Id: 7682519-1-BKS — LCSD Sample Id: 7682519-1-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	0.119	119	0.121	121	70-130	2	35	mg/kg	07.23.19 01:54	
Toluene	0.00134	0.100	0.104	104	0.106	106	70-130	2	35	mg/kg	07.23.19 01:54	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.102	102	70-130	4	35	mg/kg	07.23.19 01:54	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.205	103	70-130	3	35	mg/kg	07.23.19 01:54	
o-Xylene	<0.00200	0.100	0.0961	96	0.100	100	70-130	4	35	mg/kg	07.23.19 01:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		108		70-130	%	07.23.19 01:54
4-Bromofluorobenzene	95		95		96		70-130	%	07.23.19 01:54

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

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

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

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

QC Summary 631327

LT Environmental, Inc.

JRU DI #127

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3096390 | Matrix: Solid | Date Prep: 07.22.19
MB Sample Id: 7682520-1-BLK | LCS Sample Id: 7682520-1-BKS | LCSD Sample Id: 7682520-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00149	0.100	0.108	108	0.110	110	70-130	2	35	mg/kg	07.24.19 01:38	
Toluene	0.00159	0.100	0.0981	98	0.0978	98	70-130	0	35	mg/kg	07.24.19 01:38	
Ethylbenzene	<0.000565	0.100	0.0873	87	0.0860	86	70-130	2	35	mg/kg	07.24.19 01:38	
m,p-Xylenes	<0.00101	0.200	0.181	91	0.177	89	70-130	2	35	mg/kg	07.24.19 01:38	
o-Xylene	0.000410	0.100	0.0959	96	0.0930	93	70-130	3	35	mg/kg	07.24.19 01:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		107		109		70-130	%	07.24.19 01:38
4-Bromofluorobenzene	113		111		106		70-130	%	07.24.19 01:38

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3096313 | Matrix: Soil | Date Prep: 07.22.19
Parent Sample Id: 631327-021 | MS Sample Id: 631327-021 S | MSD Sample Id: 631327-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.103	102	0.0992	98	70-130	4	35	mg/kg	07.23.19 02:34	
Toluene	0.00125	0.101	0.0882	86	0.0825	80	70-130	7	35	mg/kg	07.23.19 02:34	
Ethylbenzene	<0.00201	0.101	0.0826	82	0.0777	77	70-130	6	35	mg/kg	07.23.19 02:34	
m,p-Xylenes	<0.00402	0.201	0.166	83	0.154	77	70-130	8	35	mg/kg	07.23.19 02:34	
o-Xylene	<0.00201	0.101	0.0820	81	0.0754	75	70-130	8	35	mg/kg	07.23.19 02:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		115		70-130	%	07.23.19 02:34
4-Bromofluorobenzene	99		96		70-130	%	07.23.19 02:34

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3096390 | Matrix: Soil | Date Prep: 07.22.19
Parent Sample Id: 631327-001 | MS Sample Id: 631327-001 S | MSD Sample Id: 631327-001 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	0.0869	87	0.108	108	70-130	22	35	mg/kg	07.24.19 02:18	
Toluene	<0.000456	0.100	0.0757	76	0.0936	94	70-130	21	35	mg/kg	07.24.19 02:18	
Ethylbenzene	<0.00200	0.100	0.0628	63	0.0819	82	70-130	26	35	mg/kg	07.24.19 02:18	X
m,p-Xylenes	<0.00101	0.200	0.125	63	0.169	85	70-130	30	35	mg/kg	07.24.19 02:18	X
o-Xylene	<0.00200	0.100	0.0699	70	0.0875	88	70-130	22	35	mg/kg	07.24.19 02:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		115		70-130	%	07.24.19 02:18
4-Bromofluorobenzene	112		105		70-130	%	07.24.19 02:18

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

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

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

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

Final 1.000

Page 971 of 1119

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 Crestboat, 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: 631327

Page 1 of 4

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc	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

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:	JRU DI #127	Turn Around	
Project Number:	2RP-4625	Routine	☑
Project Location		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	~~2.0~~ 0.2	Temp Blank: Yes (No)	Wet Ice: Yes (No)
Received Intact:	Yes (No)	Thermometer ID	T-NM-007
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chloride (EPA 300)
	PH01	S	7.15.19	9:15	1'	1			
	PH01A	S		1000	4'				
	PH02	S		1030	2'				
	PH02A	S		1100	4'				
	PH03	S		1115	1'				
	PH03A	S		1200	4'				
	PH04	S		1210	1'				
	PH04	S		1240	4'				
	PH05	S		1250	1'				
	PH05A	S		1315	4'				

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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		9:35 / 7.19.19	2		
			4		
			6		

Revised Date 032819 Rev. 2019.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 85 of 95

Page 972 of 1119

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 Carlsbad, 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: 631327

Page 2 of 4

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc.	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:	Slee@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:	JBU DI #127	Turn Around	
Project Number:	LRP-4625	Routine: ☑	
Project Location:		Rush:	
Sampler's Name:	Spencer Lee	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Temperature (°C):	10.0	Thermometer ID	T-NM-007
Received Intact:	Yes (No)		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chlorides (EPA 300)
	PH00	S	7-15-19	1320	1'	1			
	PH06A		7-15-19	1345	4'				
	PH07		7-15-19	1400	1'				
	PH07A		7-15-19	1415	4'				
	PH08		7-15-19	1430	1'				
	PH08A		7-15-19	1445	4'				
	~~PH09A~~		7-16-19	925	5'				
	PH10		7-16-19	935	1'				
	PH10A		7-16-19	955	4'				
	PH11		7-16-19	1055	2'				

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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 Lee		9:35 / 7-19-19	2		
			4		
			6		

Revised Date 02/2019 Rev. 2019.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 86 of 95

Page 973 of 1119

XENCO LABORATORIES

Chain of Custody

Work Order No: 631327

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 Crosbad, 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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	GT Environmental, Inc.	Company Name:	RTO
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:	klo@rtoenv.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:	JAL DI #127	Turn Around	
Project Number:	2RP-4625	Routine: ☑	
Project Location:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	8.0	Temp Blank:	Yes (No)
Received Intact:	Yes (No)	Wet Ice:	Yes (No)
Cooler Custody Seals:	Yes (No) N/A	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes (No) N/A	Correction Factor	-0.2
		Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)
	PH11A	S	7-16-19	1110	4'	1			
	PH12			1115	1'				
	PH12A			1145	4'				
	PH13			1215	3'				
	PH13A			1230	4'				
	PH14			1250	3'				
	PH14A			1300	4'				
	PH15			1335	2'				
	PH15A			1400	4'				
	PH16			1430	2'				

Preservative Codes: MeOH: Me; None: NO; HNO3: HN; H2SO4: H2; HCL: HL; NaOH: Na; Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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
		835 7-19-19	5		
			6		

Revised Date 082419 Rev. 2019.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 87 of 95

Page 974 of 1119

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 Crosbad, 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: 631327

Page 4 of 4

Project Manager:	~~LT Env~~ Dan Moir	Bill to: (if different)	Kyle Littrel
Company Name:	LT Environmental, Inc.	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:	432.236.3849	Email:	

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:	JAU DI #127	Turn Around	
Project Number:	2LP-4625	Routine	☑
Project Location		Rush:	
Sampler's Name:	Spencer L.	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	0.0	Temp Blank:	Yes (No)
Received Intact:	Yes (No)	Wet Ice:	Yes (No)
Cooler Custody Seals:	Yes (No) N/A	Thermometer ID	T-NM-037
Sample Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
		Total Containers:	5

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)
	PH16A	S	7.16.19	1300	4'	1		X	X	X
	PH17		7.17.19	845	2'	1		X	X	X
	PH17A			915	4'	1		X	X	X
	PH18			930	1'	1		X	X	X
	PH18A			1015	4'	1		X	X	X

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U
1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		8 35 7/19/19	2		
			4		
			6		

Revised Date 032913 Rev. 2013.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 88 of 95

Inter-Office Shipment

IOS Number **43708**

Date/Time: 07/18/19 10:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7757 8077 6800

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
631327-001	S	PH01	07/15/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-001	S	PH01	07/15/19 09:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-001	S	PH01	07/15/19 09:15	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-002	S	PH01A	07/15/19 10:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-002	S	PH01A	07/15/19 10:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-002	S	PH01A	07/15/19 10:00	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-003	S	PH02	07/15/19 10:30	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-003	S	PH02	07/15/19 10:30	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-003	S	PH02	07/15/19 10:30	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-004	S	PH02A	07/15/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-004	S	PH02A	07/15/19 11:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-004	S	PH02A	07/15/19 11:00	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-005	S	PH03	07/15/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-005	S	PH03	07/15/19 11:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-005	S	PH03	07/15/19 11:15	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-006	S	PH03A	07/15/19 12:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-006	S	PH03A	07/15/19 12:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-006	S	PH03A	07/15/19 12:00	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-007	S	PH04	07/15/19 12:10	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-007	S	PH04	07/15/19 12:10	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-007	S	PH04	07/15/19 12:10	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-008	S	PH04A	07/15/19 12:40	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-008	S	PH04A	07/15/19 12:40	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-008	S	PH04A	07/15/19 12:40	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-009	S	PH05	07/15/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **43708**

Date/Time: 07/18/19 10:39
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 7757 8077 6800
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631327-009	S	PH05	07/15/19 12:50	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-009	S	PH05	07/15/19 12:50	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-010	S	PH05A	07/15/19 13:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-010	S	PH05A	07/15/19 13:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-010	S	PH05A	07/15/19 13:15	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-011	S	PH06	07/15/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-011	S	PH06	07/15/19 13:20	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-011	S	PH06	07/15/19 13:20	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-012	S	PH06A	07/15/19 13:45	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-012	S	PH06A	07/15/19 13:45	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-012	S	PH06A	07/15/19 13:45	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-013	S	PH07	07/15/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-013	S	PH07	07/15/19 14:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-013	S	PH07	07/15/19 14:00	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-014	S	PH07A	07/15/19 14:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-014	S	PH07A	07/15/19 14:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-014	S	PH07A	07/15/19 14:15	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-015	S	PH08	07/15/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-015	S	PH08	07/15/19 14:30	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-015	S	PH08	07/15/19 14:30	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-016	S	PH08A	07/15/19 14:34	E300_CL	Chloride by EPA 300	07/24/19	01/11/20	JKR	CL	
631327-016	S	PH08A	07/15/19 14:34	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/29/19	JKR	GRO-DRO PHCC10C28 PI	
631327-016	S	PH08A	07/15/19 14:34	SW8021B	BTEX by EPA 8021B	07/24/19	07/29/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-017	S	PH10	07/16/19 09:35	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-017	S	PH10	07/16/19 09:35	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number **43708**

Date/Time: 07/18/19 10:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7757 8077 6800

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
631327-017	S	PH10	07/16/19 09:35	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-018	S	PH10A	07/16/19 09:55	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-018	S	PH10A	07/16/19 09:55	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-018	S	PH10A	07/16/19 09:55	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-019	S	PH11	07/16/19 10:55	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-019	S	PH11	07/16/19 10:55	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-019	S	PH11	07/16/19 10:55	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-020	S	PH11A	07/16/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-020	S	PH11A	07/16/19 11:10	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-020	S	PH11A	07/16/19 11:10	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-021	S	PH12	07/16/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-021	S	PH12	07/16/19 11:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-021	S	PH12	07/16/19 11:15	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-022	S	PH12A	07/16/19 11:45	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-022	S	PH12A	07/16/19 11:45	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-022	S	PH12A	07/16/19 11:45	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-023	S	PH13	07/16/19 12:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-023	S	PH13	07/16/19 12:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-023	S	PH13	07/16/19 12:15	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-024	S	PH13A	07/16/19 12:20	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-024	S	PH13A	07/16/19 12:20	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-024	S	PH13A	07/16/19 12:20	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-025	S	PH14	07/16/19 12:50	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-025	S	PH14	07/16/19 12:50	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-025	S	PH14	07/16/19 12:50	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number **43708**

Date/Time: 07/18/19 10:39
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 7757 8077 6800
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631327-026	S	PH14A	07/16/19 13:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-026	S	PH14A	07/16/19 13:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-026	S	PH14A	07/16/19 13:00	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-027	S	PH15	07/16/19 13:35	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-027	S	PH15	07/16/19 13:35	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-027	S	PH15	07/16/19 13:35	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-028	S	PH15A	07/16/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-028	S	PH15A	07/16/19 14:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-028	S	PH15A	07/16/19 14:00	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-029	S	PH16	07/16/19 14:30	E300_CL	Chloride by EPA 300	07/24/19	01/12/20	JKR	CL	
631327-029	S	PH16	07/16/19 14:30	SW8021B	BTEX by EPA 8021B	07/24/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-029	S	PH16	07/16/19 14:30	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631327-030	S	PH16A	07/17/19 15:00	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/31/19	JKR	GRO-DRO PHCC10C28 PI	
631327-030	S	PH16A	07/17/19 15:00	E300_CL	Chloride by EPA 300	07/24/19	01/13/20	JKR	CL	
631327-030	S	PH16A	07/17/19 15:00	SW8021B	BTEX by EPA 8021B	07/24/19	07/31/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-031	S	PH17	07/17/19 08:45	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/31/19	JKR	GRO-DRO PHCC10C28 PI	
631327-031	S	PH17	07/17/19 08:45	E300_CL	Chloride by EPA 300	07/24/19	01/13/20	JKR	CL	
631327-031	S	PH17	07/17/19 08:45	SW8021B	BTEX by EPA 8021B	07/24/19	07/31/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-032	S	PH17A	07/17/19 09:15	E300_CL	Chloride by EPA 300	07/24/19	01/13/20	JKR	CL	
631327-032	S	PH17A	07/17/19 09:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/31/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-032	S	PH17A	07/17/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/31/19	JKR	GRO-DRO PHCC10C28 PI	
631327-033	S	PH18	07/17/19 09:30	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/31/19	JKR	GRO-DRO PHCC10C28 PI	
631327-033	S	PH18	07/17/19 09:30	SW8021B	BTEX by EPA 8021B	07/24/19	07/31/19	JKR	BR4FBZ BZ BZME EBZ X	
631327-033	S	PH18	07/17/19 09:30	E300_CL	Chloride by EPA 300	07/24/19	01/13/20	JKR	CL	
631327-034	S	PH18A	07/17/19 10:15	SW8015MOD_NM	TPH by SW8015 Mod	07/24/19	07/31/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Date Relinquished:
Date Received:

Inter-Office Shipment

IOS Number **43708**

Date/Time: 07/18/19 10:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 7757 8077 6800

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
631327-034	S	PH18A	07/17/19 10:15	E300_CL	Chloride by EPA 300	07/24/19	01/13/20	JKR	CL	
631327-034	S	PH18A	07/17/19 10:15	SW8021B	BTEX by EPA 8021B	07/24/19	07/31/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Elizabeth McClellan
07/18/2019

Cooler Temperature:

Katie Lowe
07/19/2019 11:45
4.2

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 43708

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

Sent By: Elizabeth McClellan **Date Sent:** 07/18/2019 10:39 AM

Received By: Katie Lowe **Date Received:** 07/19/2019 11:45 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.2	
#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: _____ Date: 07/19/2019

Katie Lowe

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/18/2019 08:35:00 AM

Work Order #: 631327

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	Chilling in progress.
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#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)?	**Yes**	Subbed to Xenco 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: 07/18/2019

Checklist reviewed by: Jessica Kramer Date: 07/22/2019

Jessica Kramer

Analytical Report 631518

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU 127

2RP- 4625

31-JUL-19

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
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-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

31-JUL-19

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

Reference: XENCO Report No(s): **631518**
JRU 127
Project Address: Delaware Basin

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) 631518. 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. 631518 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 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH09	S	07-16-19 09:00	1 ft	631518-001
PH09A	S	07-16-19 09:10	2 ft	631518-002
PH09B	S	07-16-19 09:15	3 ft	631518-003
PH09C	S	07-16-19 09:20	4 ft	631518-004
PH09D	S	07-16-19 09:25	5 ft	631518-005
PH19	S	07-16-19 13:50	1 ft	631518-006
PH19A	S	07-16-19 14:10	4 ft	631518-007
PH19B	S	07-16-19 14:20	5 ft	631518-008
PH20	S	07-16-19 14:25	1 ft	631518-009
PH20A	S	07-16-19 14:50	4 ft	631518-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU 127

Project ID: *2RP- 4625*
Work Order Number(s): *631518*

Report Date: *31-JUL-19*
Date Received: *07/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096598 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3096809 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682997-1-BLK,631518-003,631518-004,631518-009,631518-008,631518-010,631518-001,631518-002,631518-005,631518-007.

Certificate of Analysis Summary 631518

LT Environmental, Inc., Arvada, CO

Project Name: JRU 127

Project Id: 2RP- 4625
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 31-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631518-001		631518-002		631518-003		631518-004		631518-005		631518-006	
	Field Id:	PH09		PH09A		PH09B		PH09C		PH09D		PH19	
	Depth:	1- ft		2- ft		3- ft		4- ft		5- ft		1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-16-19 09:00		Jul-16-19 09:10		Jul-16-19 09:15		Jul-16-19 09:20		Jul-16-19 09:25		Jul-16-19 13:50	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35	
	Analyzed:	Jul-26-19 02:59		Jul-26-19 04:17		Jul-26-19 04:37		Jul-26-19 10:56		Jul-26-19 05:17		Jul-26-19 05:37	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00400	0.00400	<0.00396	0.00396
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10		Jul-23-19 10:10	
	Analyzed:	Jul-23-19 12:29		Jul-23-19 12:34		Jul-23-19 12:40		Jul-23-19 12:45		Jul-23-19 12:50		Jul-23-19 12:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		13.4	4.96	57.5	5.00	526	5.01	1540	24.8	474	24.9	6.88	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00	
	Analyzed:	Jul-29-19 12:56		Jul-28-19 12:13		Jul-28-19 12:36		Jul-28-19 13:00		Jul-28-19 13:24		Jul-28-19 13:48	
	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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 631518

LT Environmental, Inc., Arvada, CO

Project Name: JRU 127

Project Id: 2RP- 4625
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Fri Jul-19-19 08:30 am
Report Date: 31-JUL-19
Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	631518-007		631518-008		631518-009		631518-010							
	Field Id:	PH19A		PH19B		PH20		PH20A							
	Depth:	4- ft		5- ft		1- ft		4- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	Jul-16-19 14:10		Jul-16-19 14:20		Jul-16-19 14:25		Jul-16-19 14:50							
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35		Jul-24-19 11:35							
	Analyzed:	Jul-26-19 05:58		Jul-26-19 11:16		Jul-26-19 06:38		Jul-26-19 06:58							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
m,p-Xylenes		<0.00401	0.00401	<0.00400	0.00400	<0.00398	0.00398	<0.00400	0.00400						
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200						
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-23-19 10:10		Jul-23-19 10:30		Jul-23-19 10:30		Jul-22-19 15:45							
	Analyzed:	Jul-23-19 13:01		Jul-23-19 13:33		Jul-23-19 13:49		Jul-22-19 19:58							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		50.5	5.00	11.7	5.04	<4.96	4.96	<5.00	5.00						
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00		Jul-28-19 08:00							
	Analyzed:	Jul-28-19 14:12		Jul-28-19 14:36		Jul-29-19 13:20		Jul-28-19 15:24							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						
Total GRO-DRO		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0						

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-001	Date Collected:	07.16.19 09.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.4**	4.96	mg/kg	07.23.19 12.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.29.19 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.29.19 12.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.29.19 12.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.29.19 12.56	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.29.19 12.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	07.29.19 12.56	
o-Terphenyl	84-15-1	63	%	70-135	07.29.19 12.56	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-001	Date Collected:	07.16.19 09.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 02.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 02.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.26.19 02.59	
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 02.59	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-002	Date Collected:	07.16.19 09.10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**57.5**	5.00	mg/kg	07.23.19 12.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 12.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 12.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 12.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 12.13	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 12.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	07.28.19 12.13	
o-Terphenyl	84-15-1	65	%	70-135	07.28.19 12.13	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-002	Date Collected:	07.16.19 09.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.26.19 04.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.26.19 04.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.26.19 04.17	
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.26.19 04.17	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09B**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-003	Date Collected:	07.16.19 09.15	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**526**	5.01	mg/kg	07.23.19 12.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 12.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 12.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 12.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 12.36	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 12.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-135	07.28.19 12.36	
o-Terphenyl	84-15-1	59	%	70-135	07.28.19 12.36	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09B**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-003	Date Collected:	07.16.19 09.15	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.26.19 04.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.26.19 04.37	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.26.19 04.37	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09C**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-004	Date Collected:	07.16.19 09.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1540**	24.8	mg/kg	07.23.19 12.45		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 13.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 13.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 13.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 13.00	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 13.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-135	07.28.19 13.00	
o-Terphenyl	84-15-1	61	%	70-135	07.28.19 13.00	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09C**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-004	Date Collected:	07.16.19 09.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.26.19 10.56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.26.19 10.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.26.19 10.56	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.26.19 10.56	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09D**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-005	Date Collected:	07.16.19 09.25	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**474**	24.9	mg/kg	07.23.19 12.50		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 13.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 13.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 13.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 13.24	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	07.28.19 13.24	
o-Terphenyl	84-15-1	64	%	70-135	07.28.19 13.24	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH09D**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-005	Date Collected:	07.16.19 09.25	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 05.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 05.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.26.19 05.17	
1,4-Difluorobenzene	540-36-3	106	%	70-130	07.26.19 05.17	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-006	Date Collected:	07.16.19 13.50	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.88**	4.99	mg/kg	07.23.19 12.56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 13.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 13.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 13.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 13.48	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 13.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	07.28.19 13.48	
o-Terphenyl	84-15-1	74	%	70-135	07.28.19 13.48	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-006	Date Collected:	07.16.19 13.50	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.26.19 05.37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.26.19 05.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.26.19 05.37	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.26.19 05.37	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-007	Date Collected:	07.16.19 14.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.10	Basis:	Wet Weight
Seq Number:	3096267			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**50.5**	5.00	mg/kg	07.23.19 13.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 14.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 14.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 14.12	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 14.12	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 14.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-135	07.28.19 14.12	
o-Terphenyl	84-15-1	68	%	70-135	07.28.19 14.12	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-007	Date Collected:	07.16.19 14.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.26.19 05.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 05.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	07.26.19 05.58	
4-Bromofluorobenzene	460-00-4	130	%	70-130	07.26.19 05.58	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19B**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-008	Date Collected:	07.16.19 14.20	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.30	Basis:	Wet Weight
Seq Number:	3096269			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.7**	5.04	mg/kg	07.23.19 13.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.28.19 14.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.28.19 14.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.28.19 14.36	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.28.19 14.36	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.28.19 14.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	07.28.19 14.36	
o-Terphenyl	84-15-1	69	%	70-135	07.28.19 14.36	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH19B**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-008	Date Collected:	07.16.19 14.20	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 11.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 11.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.26.19 11.16	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.26.19 11.16	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH20**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-009	Date Collected:	07.16.19 14.25	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.23.19 10.30	Basis:	Wet Weight
Seq Number:	3096269			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	07.23.19 13.49	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.29.19 13.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.29.19 13.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.29.19 13.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.29.19 13.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.29.19 13.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-135	07.29.19 13.20	
o-Terphenyl	84-15-1	61	%	70-135	07.29.19 13.20	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH20**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-009	Date Collected:	07.16.19 14.25	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.26.19 06.38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.26.19 06.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.26.19 06.38	
4-Bromofluorobenzene	460-00-4	123	%	70-130	07.26.19 06.38	

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH20A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-010	Date Collected:	07.16.19 14.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.22.19 15.45	Basis:	Wet Weight
Seq Number:	3096131			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	07.22.19 19.58	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.28.19 08.00	Basis:	Wet Weight
Seq Number:	3096809			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	07.28.19 15.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.28.19 15.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.28.19 15.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.28.19 15.24	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.28.19 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-135	07.28.19 15.24	
o-Terphenyl	84-15-1	62	%	70-135	07.28.19 15.24	**

Certificate of Analytical Results 631518

LT Environmental, Inc., Arvada, CO

JRU 127

Sample Id:	**PH20A**	Matrix:	Soil	Date Received:	07.19.19 08.30
Lab Sample Id:	631518-010	Date Collected:	07.16.19 14.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 11.35	Basis:	Wet Weight
Seq Number:	3096598			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.26.19 06.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 06.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.26.19 06.58	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.26.19 06.58	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 631518

LT Environmental, Inc.

JRU 127

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Solid — Date Prep: 07.22.19
MB Sample Id: 7682539-1-BLK — LCS Sample Id: 7682539-1-BKS — LCSD Sample Id: 7682539-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	248	99	244	98	90-110	2	20	mg/kg	07.22.19 17:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682574-1-BLK — LCS Sample Id: 7682574-1-BKS — LCSD Sample Id: 7682574-1-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	242	97	242	97	90-110	0	20	mg/kg	07.23.19 10:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096269 — Matrix: Solid — Date Prep: 07.23.19
MB Sample Id: 7682576-1-BLK — LCS Sample Id: 7682576-1-BKS — LCSD Sample Id: 7682576-1-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	246	98	243	97	90-110	1	20	mg/kg	07.23.19 13:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631394-001 — MS Sample Id: 631394-001 S — MSD Sample Id: 631394-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17.2	248	275	104	272	103	90-110	1	20	mg/kg	07.22.19 17:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096131 — Matrix: Soil — Date Prep: 07.22.19
Parent Sample Id: 631517-001 — MS Sample Id: 631517-001 S — MSD Sample Id: 631517-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	215	251	469	101	466	100	90-110	1	20	mg/kg	07.22.19 18:54	

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 631518

LT Environmental, Inc.

JRU 127

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631513-017 — MS Sample Id: 631513-017 S — MSD Sample Id: 631513-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.4	250	269	103	265	101	90-110	1	20	mg/kg	07.23.19 10:42	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096267 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631513-025 — MS Sample Id: 631513-025 S — MSD Sample Id: 631513-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.896	251	253	100	251	100	90-110	1	20	mg/kg	07.23.19 11:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096269 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631518-008 — MS Sample Id: 631518-008 S — MSD Sample Id: 631518-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.7	252	274	104	269	102	90-110	2	20	mg/kg	07.23.19 13:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096269 — Matrix: Soil — Date Prep: 07.23.19
Parent Sample Id: 631667-009 — MS Sample Id: 631667-009 S — MSD Sample Id: 631667-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	259	104	255	102	90-110	2	20	mg/kg	07.23.19 14:53	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096809 — Matrix: Solid — Date Prep: 07.28.19
MB Sample Id: 7682997-1-BLK — LCS Sample Id: 7682997-1-BKS — LCSD Sample Id: 7682997-1-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	903	90	861	86	70-135	5	20	mg/kg	07.28.19 10:08	
Diesel Range Organics (DRO)	<8.13	1000	951	95	909	91	70-135	5	20	mg/kg	07.28.19 10:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	79		74		71		70-135	%	07.28.19 10:08
o-Terphenyl	66	**	73		74		70-135	%	07.28.19 10:08

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 631518

LT Environmental, Inc.

JRU 127

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096809 — Matrix: Soil — Date Prep: 07.28.19
Parent Sample Id: 631518-001 — MS Sample Id: 631518-001 S — MSD Sample Id: 631518-001 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)	10.9	997	848	84	861	85	70-135	2	20	mg/kg	07.28.19 11:24	
Diesel Range Organics (DRO)	8.59	997	909	90	912	91	70-135	0	20	mg/kg	07.28.19 11:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	80		83		70-135	%	07.28.19 11:24
o-Terphenyl	71		70		70-135	%	07.28.19 11:24

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096598 — Matrix: Solid — Date Prep: 07.24.19
MB Sample Id: 7682689-1-BLK — LCS Sample Id: 7682689-1-BKS — LCSD Sample Id: 7682689-1-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	0.0979	98	0.107	107	70-130	9	35	mg/kg	07.25.19 21:58	
Toluene	0.000510	0.100	0.0934	93	0.102	102	70-130	9	35	mg/kg	07.25.19 21:58	
Ethylbenzene	<0.000565	0.100	0.0937	94	0.103	103	70-130	9	35	mg/kg	07.25.19 21:58	
m,p-Xylenes	<0.00101	0.200	0.188	94	0.207	104	70-130	10	35	mg/kg	07.25.19 21:58	
o-Xylene	<0.000344	0.100	0.0994	99	0.110	110	70-130	10	35	mg/kg	07.25.19 21:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		99		100		70-130	%	07.25.19 21:58
4-Bromofluorobenzene	106		108		109		70-130	%	07.25.19 21:58

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3096598 — Matrix: Soil — Date Prep: 07.24.19
Parent Sample Id: 631513-020 — MS Sample Id: 631513-020 S — MSD Sample Id: 631513-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.0887	90	0.0831	83	70-130	7	35	mg/kg	07.25.19 22:38	
Toluene	<0.00198	0.0990	0.0813	82	0.0769	77	70-130	6	35	mg/kg	07.25.19 22:38	
Ethylbenzene	<0.00198	0.0990	0.0805	81	0.0766	77	70-130	5	35	mg/kg	07.25.19 22:38	
m,p-Xylenes	<0.00100	0.198	0.161	81	0.154	77	70-130	4	35	mg/kg	07.25.19 22:38	
o-Xylene	<0.00198	0.0990	0.0865	87	0.0827	83	70-130	4	35	mg/kg	07.25.19 22:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	07.25.19 22:38
4-Bromofluorobenzene	111		114		70-130	%	07.25.19 22:38

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

Page 1012 of 1119

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 Carlsbad, 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: 631518

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc	Company Name:	RTO
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:	klw@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:	JRU 127	Turn Around	
Project Number:	2RP-4615	Routine ☑	
Project Location		Rush:	
Sampler's Name:	Spencer L.	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.8	Thermometer ID	T-210
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8012)	BTEX (EPA 8021)	Chlorides (EPA 300)
	PH6	S	7.16.19	900	1'	1			
	PH07A		7.16.19	910	2'				
	PH07B		7.16.19	915	3'				
	PH07C		7.16.19	920	4'				
	PH07D		7.16.19	925	5'				
	PH19		7.18.19	1350	1'				
	PH19A		7.18.19	1410	4'				
	PH19B		7.18.19	1420	5'				
	PH20		7.18.19	1425	1'				
	PH20A		7.18.19	1450	4'				

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 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
		830 7-19-19	5		
			6		

Revised Date 082315 Rev. 2015.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

Page 31 of 35

Inter-Office Shipment

IOS Number **43850**

Date/Time: 07/19/19 11:33
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.:
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
631518-001	S	PH09	07/16/19 09:00	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-001	S	PH09	07/16/19 09:00	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-001	S	PH09	07/16/19 09:00	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-002	S	PH09A	07/16/19 09:10	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-002	S	PH09A	07/16/19 09:10	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-002	S	PH09A	07/16/19 09:10	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-003	S	PH09B	07/16/19 09:15	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-003	S	PH09B	07/16/19 09:15	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-003	S	PH09B	07/16/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-004	S	PH09C	07/16/19 09:20	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-004	S	PH09C	07/16/19 09:20	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-004	S	PH09C	07/16/19 09:20	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-005	S	PH09D	07/16/19 09:25	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-005	S	PH09D	07/16/19 09:25	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-005	S	PH09D	07/16/19 09:25	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-006	S	PH19	07/16/19 13:50	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-006	S	PH19	07/16/19 13:50	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-006	S	PH19	07/16/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-007	S	PH19A	07/16/19 14:10	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-007	S	PH19A	07/16/19 14:10	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-007	S	PH19A	07/16/19 14:10	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-008	S	PH19B	07/16/19 14:20	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-008	S	PH19B	07/16/19 14:20	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-008	S	PH19B	07/16/19 14:20	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	
631518-009	S	PH20	07/16/19 14:25	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **43850**

Date/Time: 07/19/19 11:33
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.:

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
631518-009	S	PH20	07/16/19 14:25	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-009	S	PH20	07/16/19 14:25	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-010	S	PH20A	07/16/19 14:50	SW8021B	BTEX by EPA 8021B	07/25/19	07/30/19	JKR	BR4FBZ BZ BZME EBZ X	
631518-010	S	PH20A	07/16/19 14:50	E300_CL	Chloride by EPA 300	07/25/19	01/12/20	JKR	CL	
631518-010	S	PH20A	07/16/19 14:50	SW8015MOD_NM	TPH by SW8015 Mod	07/25/19	07/30/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 07/19/2019

Received By: Katie Lowe

Date Received:

Cooler Temperature:

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 43850

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

Sent By: Elizabeth McClellan **Date Sent:** 07/19/2019 11:33 AM

Received By: **Date Received:**

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: _____ Date: _____
Katie Lowe

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/19/2019 08:30:00 AM

Work Order #: 631518

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	5.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#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)?	**Yes**	Subbed to Xenco 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: 07/19/2019

Checklist reviewed by: Jessica Kramer Date: 07/22/2019

Jessica Kramer

Analytical Report 640965

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI #163 H

31-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)

31-OCT-19

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

Reference: XENCO Report No(s): **640965**
JRU DI #163 H
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) 640965. 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. 640965 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 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS001	S	10-23-19 16:15	0.5 ft	640965-001
SS002	S	10-23-19 16:20	0.5 ft	640965-002
SS003	S	10-23-19 16:25	0.5 ft	640965-003
SS004	S	10-23-19 16:30	0.5 ft	640965-004
SS005	S	10-23-19 16:35	0.5 ft	640965-005
SS006	S	10-23-19 16:40	0.5 ft	640965-006
SS007	S	10-23-19 16:45	0.5 ft	640965-007
SS008	S	10-23-19 16:50	0.5 ft	640965-008
SS009	S	10-23-19 16:55	0.5 ft	640965-009

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: JRU DI #163 H

Project ID:
Work Order Number(s): *640965*

Report Date: *31-OCT-19*
Date Received: *10/24/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105523 Inorganic Anions by EPA 300
Lab Sample ID 640971-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640965-001, -002, -003, -004, -005, -006, -007, -008.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3105953 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 640965-001 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 and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640965-001, -002, -003, -004, -006.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 640965-004.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is su; data confirmed by re-analysis.
Samples affected are: 640965-004,640965-006,640965-003.

Batch: LBA-3105954 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 1,4-Difluorobenzene, Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 640965-005.

Certificate of Analysis Summary 640965

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #163 H

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Oct-24-19 08:51 am
Report Date: 31-OCT-19
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	640965-001		640965-002		640965-003		640965-004		640965-005		640965-006	
		Field Id:	SS001		SS002		SS003		SS004		SS005		SS006	
		Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft		0.5- ft	
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Oct-23-19 16:15		Oct-23-19 16:20		Oct-23-19 16:25		Oct-23-19 16:30		Oct-23-19 16:35		Oct-23-19 16:40	
BTEX by EPA 8021B SUB: T104704400-19-19		Extracted:	Oct-29-19 09:00		Oct-29-19 09:00		Oct-29-19 09:00		Oct-29-19 09:00		Oct-30-19 10:30		Oct-29-19 09:00	
		Analyzed:	Oct-29-19 12:44		Oct-29-19 13:04		Oct-29-19 13:24		Oct-29-19 13:45		Oct-30-19 16:31		Oct-29-19 14:25	
		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	0.00450	0.00201	0.00361	0.00199	4.54 D	0.199	0.0697	0.00200	4.07 D	0.401
Toluene			0.0114	0.00198	0.0954	0.00201	0.319	0.00199	0.389	0.00199	1.63 D	0.200	68.9 D	0.401
Ethylbenzene			0.0113	0.00198	0.0360	0.00201	0.228	0.00199	12.9 D	0.199	0.904 D	0.200	25.3 D	0.401
m,p-Xylenes			0.0454	0.00396	0.139	0.00402	0.775	0.00398	48.3 D	0.398	3.63 D	0.399	91.7 D	0.802
o-Xylene			0.0157	0.00198	0.0408	0.00201	0.315	0.00199	15.5 D	0.199	1.40 D	0.200	32.9 D	0.401
Total Xylenes			0.0611	0.00198	0.180	0.00201	1.09	0.00199	63.8	0.199	5.03	0.200	125	0.401
Total BTEX			0.0838	0.00198	0.316	0.00201	1.64	0.00199	81.6	0.00199	7.63	0.00200	223	0.401
Chloride by EPA 300 SUB: T104704400-19-19		Extracted:	Oct-25-19 15:45		Oct-25-19 15:45		Oct-25-19 15:45		Oct-25-19 15:45		Oct-25-19 15:45		Oct-25-19 15:45	
		Analyzed:	Oct-25-19 16:30		Oct-25-19 16:56		Oct-25-19 17:03		Oct-25-19 17:09		Oct-25-19 17:29		Oct-25-19 17:36	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride			74.2	5.04	5340	49.6	12500	100	14200	99.8	9400	49.5	10800	99.0
TPH by SW8015 Mod SUB: T104704400-19-19		Extracted:	Oct-25-19 17:00		Oct-25-19 17:00		Oct-25-19 17:00		Oct-25-19 17:00		Oct-25-19 17:00		Oct-25-19 17:00	
		Analyzed:	Oct-25-19 20:50		Oct-25-19 21:46		Oct-25-19 22:04		Oct-26-19 08:18		Oct-25-19 22:42		Oct-26-19 08:36	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)			<49.9	49.9	<49.8	49.8	442	49.9	2150	250	644	49.9	3900	250
Diesel Range Organics (DRO)			<49.9	49.9	<49.8	49.8	2230	49.9	6580	250	2900	49.9	8620	250
Motor Oil Range Hydrocarbons (MRO)			<49.9	49.9	<49.8	49.8	248	49.9	1090	250	274	49.9	1020	250
Total GRO-DRO			<49.9	49.9	<49.8	49.8	2670	49.9	8730	250	3540	49.9	12500	250
Total TPH			<49.9	49.9	<49.8	49.8	2920	49.9	9820	250	3820	49.9	13500	250

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 640965

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #163 H

Project Id:
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Oct-24-19 08:51 am
Report Date: 31-OCT-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640965-007		640965-008		640965-009				
	Field Id:	SS007		SS008		SS009				
	Depth:	0.5- ft		0.5- ft		0.5- ft				
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Oct-23-19 16:45		Oct-23-19 16:50		Oct-23-19 16:55				
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-30-19 10:30		Oct-30-19 10:30		Oct-30-19 10:30				
	Analyzed:	Oct-30-19 16:51		Oct-30-19 17:11		Oct-30-19 17:31				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198			
Toluene		0.0150	0.00200	<0.00202	0.00202	<0.00198	0.00198			
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00198	0.00198			
m,p-Xylenes		0.0220	0.00400	0.00718	0.00403	<0.00397	0.00397			
o-Xylene		0.00786	0.00200	<0.00202	0.00202	<0.00198	0.00198			
Total Xylenes		0.0299	0.00200	0.00718	0.00202	<0.00198	0.00198			
Total BTEX		0.0449	0.00200	0.00718	0.00202	<0.00198	0.00198			
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-25-19 15:45		Oct-25-19 15:45		Oct-28-19 11:25				
	Analyzed:	Oct-25-19 17:43		Oct-25-19 17:49		Oct-28-19 15:04				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		39.0	24.8	9.38	5.04	10.2	5.00			
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-25-19 17:00		Oct-25-19 17:00		Oct-25-19 17:00				
	Analyzed:	Oct-25-19 23:19		Oct-25-19 23:38		Oct-25-19 23:57				
	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			

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS001**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-001	Date Collected:	10.23.19 16.15	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**74.2**	5.04	mg/kg	10.25.19 16.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			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	10.25.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.25.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 20.50	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.25.19 20.50	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.25.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.25.19 20.50	
o-Terphenyl	84-15-1	99	%	70-135	10.25.19 20.50	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS001**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-001	Date Collected:	10.23.19 16.15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 09.00	Basis:	Wet Weight
Seq Number:	3105953			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.29.19 12.44	U	1
Toluene	108-88-3	**0.0114**	0.00198	mg/kg	10.29.19 12.44		1
Ethylbenzene	100-41-4	**0.0113**	0.00198	mg/kg	10.29.19 12.44		1
m,p-Xylenes	179601-23-1	**0.0454**	0.00396	mg/kg	10.29.19 12.44		1
o-Xylene	95-47-6	**0.0157**	0.00198	mg/kg	10.29.19 12.44		1
Total Xylenes	1330-20-7	**0.0611**	0.00198	mg/kg	10.29.19 12.44		1
Total BTEX		**0.0838**	0.00198	mg/kg	10.29.19 12.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.29.19 12.44	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.29.19 12.44	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS002**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-002	Date Collected:	10.23.19 16.20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5340**	49.6	mg/kg	10.25.19 16.56		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			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	10.25.19 21.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.25.19 21.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.25.19 21.46	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.25.19 21.46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.25.19 21.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.25.19 21.46	
o-Terphenyl	84-15-1	98	%	70-135	10.25.19 21.46	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS002**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-002	Date Collected:	10.23.19 16.20	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 09.00	Basis:	Wet Weight
Seq Number:	3105953			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00450**	0.00201	mg/kg	10.29.19 13.04		1
Toluene	108-88-3	**0.0954**	0.00201	mg/kg	10.29.19 13.04		1
Ethylbenzene	100-41-4	**0.0360**	0.00201	mg/kg	10.29.19 13.04		1
m,p-Xylenes	179601-23-1	**0.139**	0.00402	mg/kg	10.29.19 13.04		1
o-Xylene	95-47-6	**0.0408**	0.00201	mg/kg	10.29.19 13.04		1
Total Xylenes	1330-20-7	**0.180**	0.00201	mg/kg	10.29.19 13.04		1
Total BTEX		**0.316**	0.00201	mg/kg	10.29.19 13.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.29.19 13.04	
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.29.19 13.04	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS003**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-003	Date Collected:	10.23.19 16.25	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12500**	100	mg/kg	10.25.19 17.03		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**442**	49.9	mg/kg	10.25.19 22.04		1
Diesel Range Organics (DRO)	C10C28DRO	**2230**	49.9	mg/kg	10.25.19 22.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**248**	49.9	mg/kg	10.25.19 22.04		1
Total GRO-DRO	PHC628	**2670**	49.9	mg/kg	10.25.19 22.04		1
Total TPH	PHC635	**2920**	49.9	mg/kg	10.25.19 22.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	10.25.19 22.04	
o-Terphenyl	84-15-1	124	%	70-135	10.25.19 22.04	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS003**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-003	Date Collected:	10.23.19 16.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 09.00	Basis:	Wet Weight
Seq Number:	3105953			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00361**	0.00199	mg/kg	10.29.19 13.24		1
Toluene	108-88-3	**0.319**	0.00199	mg/kg	10.29.19 13.24		1
Ethylbenzene	100-41-4	**0.228**	0.00199	mg/kg	10.29.19 13.24		1
m,p-Xylenes	179601-23-1	**0.775**	0.00398	mg/kg	10.29.19 13.24		1
o-Xylene	95-47-6	**0.315**	0.00199	mg/kg	10.29.19 13.24		1
Total Xylenes	1330-20-7	**1.09**	0.00199	mg/kg	10.29.19 13.24		1
Total BTEX		**1.64**	0.00199	mg/kg	10.29.19 13.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.29.19 13.24	
4-Bromofluorobenzene	460-00-4	265	%	70-130	10.29.19 13.24	**

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS004**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-004	Date Collected:	10.23.19 16.30	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14200**	99.8	mg/kg	10.25.19 17.09		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2150**	250	mg/kg	10.26.19 08.18		5
Diesel Range Organics (DRO)	C10C28DRO	**6580**	250	mg/kg	10.26.19 08.18		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1090**	250	mg/kg	10.26.19 08.18		5
Total GRO-DRO	PHC628	**8730**	250	mg/kg	10.26.19 08.18		5
Total TPH	PHC635	**9820**	250	mg/kg	10.26.19 08.18		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.26.19 08.18	
o-Terphenyl	84-15-1	114	%	70-135	10.26.19 08.18	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS004**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-004	Date Collected:	10.23.19 16.30	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 09.00	Basis:	Wet Weight
Seq Number:	3105953			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**4.54**	0.199	mg/kg	10.29.19 20.05	D	100
Toluene	108-88-3	**0.389**	0.00199	mg/kg	10.29.19 13.45		1
Ethylbenzene	100-41-4	**12.9**	0.199	mg/kg	10.29.19 20.05	D	100
m,p-Xylenes	179601-23-1	**48.3**	0.398	mg/kg	10.29.19 20.05	D	100
o-Xylene	95-47-6	**15.5**	0.199	mg/kg	10.29.19 20.05	D	100
Total Xylenes	1330-20-7	**63.8**	0.199	mg/kg	10.29.19 20.05		100
Total BTEX		**81.6**	0.00199	mg/kg	10.29.19 20.05		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	753	%	70-130	10.29.19 13.45	**
1,4-Difluorobenzene	540-36-3	151	%	70-130	10.29.19 13.45	**

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS005**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-005	Date Collected:	10.23.19 16.35	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9400**	49.5	mg/kg	10.25.19 17.29		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**644**	49.9	mg/kg	10.25.19 22.42		1
Diesel Range Organics (DRO)	C10C28DRO	**2900**	49.9	mg/kg	10.25.19 22.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**274**	49.9	mg/kg	10.25.19 22.42		1
Total GRO-DRO	PHC628	**3540**	49.9	mg/kg	10.25.19 22.42		1
Total TPH	PHC635	**3820**	49.9	mg/kg	10.25.19 22.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.25.19 22.42	
o-Terphenyl	84-15-1	84	%	70-135	10.25.19 22.42	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS005**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-005	Date Collected:	10.23.19 16.35	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.30.19 10.30	Basis:	Wet Weight
Seq Number:	3105954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0697**	0.00200	mg/kg	10.30.19 16.31		1
Toluene	108-88-3	**1.63**	0.200	mg/kg	10.31.19 09.59	D	100
Ethylbenzene	100-41-4	**0.904**	0.200	mg/kg	10.31.19 09.59	D	100
m,p-Xylenes	179601-23-1	**3.63**	0.399	mg/kg	10.31.19 09.59	D	100
o-Xylene	95-47-6	**1.40**	0.200	mg/kg	10.31.19 09.59	D	100
Total Xylenes	1330-20-7	**5.03**	0.200	mg/kg	10.31.19 09.59		100
Total BTEX		**7.63**	0.00200	mg/kg	10.31.19 09.59		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	413	%	70-130	10.30.19 16.31	**
1,4-Difluorobenzene	540-36-3	131	%	70-130	10.30.19 16.31	**

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS006**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-006	Date Collected:	10.23.19 16.40	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10800**	99.0	mg/kg	10.25.19 17.36		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3900**	250	mg/kg	10.26.19 08.36		5
Diesel Range Organics (DRO)	C10C28DRO	**8620**	250	mg/kg	10.26.19 08.36		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1020**	250	mg/kg	10.26.19 08.36		5
Total GRO-DRO	PHC628	**12500**	250	mg/kg	10.26.19 08.36		5
Total TPH	PHC635	**13500**	250	mg/kg	10.26.19 08.36		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.26.19 08.36	
o-Terphenyl	84-15-1	112	%	70-135	10.26.19 08.36	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS006**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-006	Date Collected:	10.23.19 16.40	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 09.00	Basis:	Wet Weight
Seq Number:	3105953			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**4.07**	0.401	mg/kg	10.30.19 17.51	D	200
Toluene	108-88-3	**68.9**	0.401	mg/kg	10.30.19 17.51	D	200
Ethylbenzene	100-41-4	**25.3**	0.401	mg/kg	10.30.19 17.51	D	200
m,p-Xylenes	179601-23-1	**91.7**	0.802	mg/kg	10.30.19 17.51	D	200
o-Xylene	95-47-6	**32.9**	0.401	mg/kg	10.30.19 17.51	D	200
Total Xylenes	1330-20-7	**125**	0.401	mg/kg	10.30.19 17.51		200
Total BTEX		**223**	0.401	mg/kg	10.30.19 17.51		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	123	%	70-130	10.29.19 14.25	
4-Bromofluorobenzene	460-00-4	707	%	70-130	10.29.19 14.25	**

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS007**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-007	Date Collected:	10.23.19 16.45	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.0**	24.8	mg/kg	10.25.19 17.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			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	10.25.19 23.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 23.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 23.19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.25.19 23.19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 23.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.25.19 23.19	
o-Terphenyl	84-15-1	95	%	70-135	10.25.19 23.19	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS007**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-007	Date Collected:	10.23.19 16.45	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.30.19 10.30	Basis:	Wet Weight
Seq Number:	3105954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 16.51	U	1
Toluene	108-88-3	**0.0150**	0.00200	mg/kg	10.30.19 16.51		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 16.51	U	1
m,p-Xylenes	179601-23-1	**0.0220**	0.00400	mg/kg	10.30.19 16.51		1
o-Xylene	95-47-6	**0.00786**	0.00200	mg/kg	10.30.19 16.51		1
Total Xylenes	1330-20-7	**0.0299**	0.00200	mg/kg	10.30.19 16.51		1
Total BTEX		**0.0449**	0.00200	mg/kg	10.30.19 16.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.30.19 16.51	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.30.19 16.51	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS008**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-008	Date Collected:	10.23.19 16.50	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.25.19 15.45	Basis:	Wet Weight
Seq Number:	3105523			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.38**	5.04	mg/kg	10.25.19 17.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			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	10.25.19 23.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.25.19 23.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 23.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.25.19 23.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.25.19 23.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.25.19 23.38	
o-Terphenyl	84-15-1	94	%	70-135	10.25.19 23.38	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS008**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-008	Date Collected:	10.23.19 16.50	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.30.19 10.30	Basis:	Wet Weight
Seq Number:	3105954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.30.19 17.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.30.19 17.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.30.19 17.11	U	1
m,p-Xylenes	179601-23-1	**0.00718**	0.00403	mg/kg	10.30.19 17.11		1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.30.19 17.11	U	1
Total Xylenes	1330-20-7	**0.00718**	0.00202	mg/kg	10.30.19 17.11		1
Total BTEX		**0.00718**	0.00202	mg/kg	10.30.19 17.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.30.19 17.11	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 17.11	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS009**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-009	Date Collected:	10.23.19 16.55	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.28.19 11.25	Basis:	Wet Weight
Seq Number:	3105644			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.2**	5.00	mg/kg	10.28.19 15.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.25.19 17.00	Basis:	Wet Weight
Seq Number:	3105539			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	10.25.19 23.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 23.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 23.57	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.25.19 23.57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 23.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.25.19 23.57	
o-Terphenyl	84-15-1	94	%	70-135	10.25.19 23.57	

Certificate of Analytical Results 640965

LT Environmental, Inc., Arvada, CO

JRU DI #163 H

Sample Id:	**SS009**	Matrix:	Soil	Date Received:	10.24.19 08.51
Lab Sample Id:	640965-009	Date Collected:	10.23.19 16.55	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.30.19 10.30	Basis:	Wet Weight
Seq Number:	3105954			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.30.19 17.31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.30.19 17.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 17.31	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.30.19 17.31	

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 640965

LT Environmental, Inc.

JRU DI #163 H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105523 — Matrix: Solid — Date Prep: 10.25.19
MB Sample Id: 7688928-1-BLK — LCS Sample Id: 7688928-1-BKS — LCSD Sample Id: 7688928-1-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	256	102	256	102	90-110	0	20	mg/kg	10.25.19 16:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Solid — Date Prep: 10.28.19
MB Sample Id: 7688995-1-BLK — LCS Sample Id: 7688995-1-BKS — LCSD Sample Id: 7688995-1-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	245	98	90-110	1	20	mg/kg	10.28.19 12:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105523 — Matrix: Soil — Date Prep: 10.25.19
Parent Sample Id: 640965-001 — MS Sample Id: 640965-001 S — MSD Sample Id: 640965-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	74.2	252	353	111	348	109	90-110	1	20	mg/kg	10.25.19 16:36	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105523 — Matrix: Soil — Date Prep: 10.25.19
Parent Sample Id: 640971-001 — MS Sample Id: 640971-001 S — MSD Sample Id: 640971-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	170	253	433	104	435	105	90-110	0	20	mg/kg	10.25.19 18:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 640979-091 — MS Sample Id: 640979-091 S — MSD Sample Id: 640979-091 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.0	249	255	96	261	99	90-110	2	20	mg/kg	10.28.19 12:27	

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 640965

LT Environmental, Inc.

JRU DI #163 H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105644 — Matrix: Soil — Date Prep: 10.28.19
Parent Sample Id: 641117-008 — MS Sample Id: 641117-008 S — MSD Sample Id: 641117-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1140	199	1320	90	1330	95	90-110	1	20	mg/kg	10.28.19 13:48	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105539 — Matrix: Solid — Date Prep: 10.25.19
MB Sample Id: 7688958-1-BLK — LCS Sample Id: 7688958-1-BKS — LCSD Sample Id: 7688958-1-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	1040	104	1050	105	70-135	1	20	mg/kg	10.25.19 20:12	
Diesel Range Organics (DRO)	<15.0	1000	970	97	981	98	70-135	1	20	mg/kg	10.25.19 20:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		119		118		70-135	%	10.25.19 20:12
o-Terphenyl	102		103		106		70-135	%	10.25.19 20:12

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105539 — Matrix: Solid — Date Prep: 10.25.19
MB Sample Id: 7688958-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.25.19 19:53	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105539 — Matrix: Soil — Date Prep: 10.25.19
Parent Sample Id: 640965-001 — MS Sample Id: 640965-001 S — MSD Sample Id: 640965-001 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	1020	102	1040	104	70-135	2	20	mg/kg	10.25.19 21:08	
Diesel Range Organics (DRO)	<15.0	999	958	96	973	97	70-135	2	20	mg/kg	10.25.19 21:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		119		70-135	%	10.25.19 21:08
o-Terphenyl	108		105		70-135	%	10.25.19 21:08

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 640965

LT Environmental, Inc.

JRU DI #163 H

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105953 | Matrix: Solid | Date Prep: 10.29.19
MB Sample Id: 7689129-1-BLK | LCS Sample Id: 7689129-1-BKS | LCSD Sample Id: 7689129-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.113	113	70-130	10	35	mg/kg	10.29.19 10:45	
Toluene	<0.00200	0.100	0.101	101	0.108	108	70-130	7	35	mg/kg	10.29.19 10:45	
Ethylbenzene	<0.00200	0.100	0.105	105	0.109	109	70-130	4	35	mg/kg	10.29.19 10:45	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.222	111	70-130	4	35	mg/kg	10.29.19 10:45	
o-Xylene	<0.00200	0.100	0.105	105	0.110	110	70-130	5	35	mg/kg	10.29.19 10:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		96		98		70-130	%	10.29.19 10:45
4-Bromofluorobenzene	93		103		103		70-130	%	10.29.19 10:45

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105954 | Matrix: Solid | Date Prep: 10.29.19
MB Sample Id: 7689168-1-BLK | LCS Sample Id: 7689168-1-BKS | LCSD Sample Id: 7689168-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.106	106	70-130	5	35	mg/kg	10.30.19 08:02	
Toluene	<0.00200	0.100	0.0948	95	0.103	103	70-130	8	35	mg/kg	10.30.19 08:02	
Ethylbenzene	<0.00200	0.100	0.0953	95	0.105	105	70-130	10	35	mg/kg	10.30.19 08:02	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.213	107	70-130	10	35	mg/kg	10.30.19 08:02	
o-Xylene	<0.00200	0.100	0.0969	97	0.109	109	70-130	12	35	mg/kg	10.30.19 08:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		97		97		70-130	%	10.30.19 08:02
4-Bromofluorobenzene	98		100		111		70-130	%	10.30.19 08:02

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105953 | Matrix: Soil | Date Prep: 10.29.19
Parent Sample Id: 640965-001 | MS Sample Id: 640965-001 S | MSD Sample Id: 640965-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0824	83	0.0615	62	70-130	29	35	mg/kg	10.29.19 11:25	X
Toluene	0.0114	0.0992	0.0813	70	0.0622	51	70-130	27	35	mg/kg	10.29.19 11:25	X
Ethylbenzene	0.0113	0.0992	0.0785	68	0.0563	45	70-130	33	35	mg/kg	10.29.19 11:25	X
m,p-Xylenes	0.0454	0.198	0.172	64	0.128	41	70-130	29	35	mg/kg	10.29.19 11:25	X
o-Xylene	0.0157	0.0992	0.0820	67	0.0604	45	70-130	30	35	mg/kg	10.29.19 11:25	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	10.29.19 11:25
4-Bromofluorobenzene	102		104		70-130	%	10.29.19 11:25

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

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

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

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

Final 1.000

QC Summary 640965

LT Environmental, Inc.

JRU DI #163 H

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

Seq Number: 3105954 Matrix: Soil Date Prep: 10.29.19

Parent Sample Id: 641420-001 MS Sample Id: 641420-001 S MSD Sample Id: 641420-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0796	80	0.0780	78	70-130	2	35	mg/kg	10.30.19 08:42	
Toluene	<0.00198	0.0992	0.0733	74	0.0748	75	70-130	2	35	mg/kg	10.30.19 08:42	
Ethylbenzene	<0.00198	0.0992	0.0698	70	0.0707	71	70-130	1	35	mg/kg	10.30.19 08:42	
m,p-Xylenes	<0.00397	0.198	0.142	72	0.147	74	70-130	3	35	mg/kg	10.30.19 08:42	
o-Xylene	<0.00198	0.0992	0.0730	74	0.0758	76	70-130	4	35	mg/kg	10.30.19 08:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		70-130	%	10.30.19 08:42
4-Bromofluorobenzene	108		120		70-130	%	10.30.19 08:42

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	

Page 1046 of 1119

Chain of Custody

Work Order No: 646965

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 Crestbad, 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

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc	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:	432.236.3849	Email:	klo@heav.com, dmoir@heav.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:	JRU DI #163H	Turn Around	
Project Number:		Routine ☑	
Project Location		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Temperature (°C):	1.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes ☐ N/A	Total Containers:	9
Sample Custody Seals:	Yes ☐ N/A		

ANALYSIS REQUEST

Preservative Codes
MeOH: Me
None: NO
HNO3: HN
H2SO4: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chlorides (EPA 300)	Sample Comments
	SS01	S	10/23/19	1615	0.5'	1	X	X	X	
	SS02			1620	0.5'					
	SS03			1625	0.5'					
	SS04			1630	0.5'					
	SS05			1635	0.5'					
	SS06			1640	0.5					
	SS07			1645	0.5'					
	SS08			1650	0.5'					
	SS09			1655	0.5					

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

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

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

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	Kalei Jennings	10-24-19 8:00AM	Kalei Jennings		10/24/19 8:5

Revised Date 082019 Rev. 2019.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 30 of 34

Inter-Office Shipment

IOS Number **50786**

Date/Time: 10/24/19 13:37
Created by: Martha Castro
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 776810437200
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
640965-001	S	SS001	10/23/19 16:15	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-001	S	SS001	10/23/19 16:15	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-001	S	SS001	10/23/19 16:15	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-002	S	SS002	10/23/19 16:20	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-002	S	SS002	10/23/19 16:20	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-002	S	SS002	10/23/19 16:20	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-003	S	SS003	10/23/19 16:25	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-003	S	SS003	10/23/19 16:25	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-003	S	SS003	10/23/19 16:25	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-004	S	SS004	10/23/19 16:30	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-004	S	SS004	10/23/19 16:30	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-004	S	SS004	10/23/19 16:30	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-005	S	SS005	10/23/19 16:35	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-005	S	SS005	10/23/19 16:35	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-005	S	SS005	10/23/19 16:35	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-006	S	SS006	10/23/19 16:40	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-006	S	SS006	10/23/19 16:40	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-006	S	SS006	10/23/19 16:40	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-007	S	SS007	10/23/19 16:45	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-007	S	SS007	10/23/19 16:45	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-007	S	SS007	10/23/19 16:45	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-008	S	SS008	10/23/19 16:50	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	
640965-008	S	SS008	10/23/19 16:50	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-008	S	SS008	10/23/19 16:50	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	
640965-009	S	SS009	10/23/19 16:55	SW8015MOD_NM	TPH by SW8015 Mod	10/30/19	11/06/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **50786**

Date/Time: 10/24/19 13:37
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Martha Castro
Delivery Priority:
Air Bill No.: 776810437200

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
640965-009	S	SS009	10/23/19 16:55	SW8021B	BTEX by EPA 8021B	10/30/19	11/06/19	JKR	BR4FBZ BZ BZME EBZ X	
640965-009	S	SS009	10/23/19 16:55	E300_CL	Chloride by EPA 300	10/30/19	04/20/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Martha Castro

Date Relinquished: 10/24/2019

Received By: Brianna Teel

Date Received: 10/25/2019 11:36

Cooler Temperature: 0.1

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 50786

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Martha Castro **Date Sent:** 10/24/2019 01:37 PM

Received By: Brianna Teel **Date Received:** 10/25/2019 11:36 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.1	
#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: 10/25/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/24/2019 08:51:00 AM

Work Order #: 640965

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

Temperature Measuring device used : T NM 007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6*Custody Seals Signed and dated?	**No**
#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**
#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: Martha Castro Date: 10/24/2019

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

Analytical Report 650230

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU - DI1- 163H

012919259

27-JAN-20

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

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

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

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)

27-JAN-20

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

Reference: XENCO Report No(s): **650230**
JRU - DI1- 163H
Project Address: Eddy

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) 650230. 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. 650230 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 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	01-23-20 11:43	0.5 ft	650230-001
BH01A	S	01-23-20 11:49	2 ft	650230-002
BH01B	S	01-23-20 12:55	7.5 ft	650230-003
BH02	S	01-23-20 13:56	0.5 ft	650230-004
BH02A	S	01-23-20 14:00	2 ft	650230-005
BH02B	S	01-23-20 14:20	6.5 ft	650230-006
BH03	S	01-23-20 14:32	0.5 ft	650230-007
BH03A	S	01-23-20 14:37	2 ft	650230-008
BH03B	S	01-23-20 15:17	8 ft	650230-009

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU - DI1- 163H

Project ID: *012919259*
Work Order Number(s): *650230*

Report Date: *27-JAN-20*
Date Received: *01/24/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114405 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3114410 Chloride by EPA 300
Lab Sample ID 650230-003 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: 650230-001, -002, -003, -004, -005, -006, -007, -008, -009.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3114415 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3114477 TPH by SW8015 Mod
Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 650230-007.

Certificate of Analysis Summary 650230

LT Environmental, Inc., Arvada, CO

Project Name: JRU - DI1- 163H

Project Id: 012919259
Contact: Dan Moir
Project Location: Eddy

Date Received in Lab: Fri Jan-24-20 09:40 am
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	650230-001		650230-002		650230-003		650230-004		650230-005		650230-006	
	Field Id:	BH01		BH01A		BH01B		BH02		BH02A		BH02B	
	Depth:	0.5- ft		2- ft		7.5- ft		0.5- ft		2- ft		6.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-23-20 11:43		Jan-23-20 11:49		Jan-23-20 12:55		Jan-23-20 13:56		Jan-23-20 14:00		Jan-23-20 14:20	
BTEX by EPA 8021B	*Extracted:*	Jan-24-20 11:00		Jan-24-20 11:00		Jan-24-20 15:00		Jan-24-20 15:00		Jan-24-20 15:00		Jan-24-20 15:00	
	Analyzed:	Jan-25-20 12:03		Jan-25-20 11:43		Jan-25-20 12:24		Jan-25-20 12:44		Jan-25-20 13:05		Jan-25-20 03:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		1.16	0.200	0.0332	0.0200	<0.0102	0.0102	0.137	0.0196	0.0212	0.0201	0.0107	0.00980
Toluene		21.2	0.200	1.35	0.0200	0.0936	0.0204	2.53	0.0196	0.220	0.0201	0.0691	0.0196
Ethylbenzene		9.05	0.200	0.887	0.0200	0.0611	0.0204	1.78	0.0196	0.126	0.0201	0.0521	0.0196
m,p-Xylenes		29.5	0.399	3.00	0.0401	0.218	0.0408	6.14	0.0392	0.460	0.0402	0.203	0.0392
o-Xylene		11.6	0.200	1.54	0.0200	0.116	0.0204	3.07	0.0196	0.249	0.0201	0.112	0.0196
Total Xylenes		41.1	0.200	4.54	0.0200	0.334	0.0204	9.21	0.0196	0.709	0.0201	0.315	0.0196
Total BTEX		72.5	0.200	6.81	0.0200	0.489	0.0102	13.7	0.0196	1.08	0.0201	0.447	0.00980
Chloride by EPA 300	*Extracted:*	Jan-24-20 16:12		Jan-24-20 16:12		Jan-24-20 16:12		Jan-24-20 16:12		Jan-24-20 16:12		Jan-24-20 16:12	
	Analyzed:	Jan-25-20 10:10		Jan-25-20 10:15		Jan-25-20 10:20		Jan-25-20 10:35		Jan-25-20 10:40		Jan-25-20 10:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8230 D	198	9310	200	2650	200	13700	202	13500 D	200	235	10.1
TPH by SW8015 Mod	*Extracted:*	Jan-24-20 13:50		Jan-24-20 13:50		Jan-24-20 13:50		Jan-24-20 13:50		Jan-24-20 13:50		Jan-24-20 13:50	
	Analyzed:	Jan-24-20 21:10		Jan-24-20 21:31		Jan-24-20 21:31		Jan-24-20 21:51		Jan-24-20 21:51		Jan-24-20 22:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		2020	50.3	212	49.8	<50.3	50.3	368	50.3	<50.1	50.1	<50.1	50.1
Diesel Range Organics (DRO)		3770	50.3	1330	49.8	748	50.3	1990	50.3	207	50.1	161	50.1
Motor Oil Range Hydrocarbons (MRO)		432	50.3	107	49.8	115	50.3	168	50.3	<50.1	50.1	<50.1	50.1
Total GRO-DRO		5790	50.3	1540	49.8	748	50.3	2360	50.3	207	50.1	161	50.1
Total TPH		6220	50.3	1650	49.8	863	50.3	2530	50.3	207	50.1	161	50.1

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 650230

LT Environmental, Inc., Arvada, CO

Project Name: JRU - DI1- 163H

Project Id: 012919259
Contact: Dan Moir
Project Location: Eddy

Date Received in Lab: Fri Jan-24-20 09:40 am
Report Date: 27-JAN-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	650230-007		650230-008		650230-009				
	Field Id:	BH03		BH03A		BH03B				
	Depth:	0.5- ft		2- ft		8- ft				
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Jan-23-20 14:32		Jan-23-20 14:37		Jan-23-20 15:17				
BTEX by EPA 8021B	***Extracted:***	Jan-24-20 15:00		Jan-24-20 15:00		Jan-24-20 15:00				
	Analyzed:	Jan-25-20 13:25		Jan-25-20 03:38		Jan-25-20 01:56				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		0.0755	0.0497	<0.00201	0.00201	<0.00200	0.00200			
Toluene		0.883	0.199	0.00754	0.00201	<0.00200	0.00200			
Ethylbenzene		1.14	0.199	0.0108	0.00201	<0.00200	0.00200			
m,p-Xylenes		5.16	0.398	0.0213	0.00402	<0.00400	0.00400			
o-Xylene		4.51	0.199	0.0480	0.00201	<0.00200	0.00200			
Total Xylenes		9.67	0.199	0.0693	0.00201	<0.00200	0.00200			
Total BTEX		11.8	0.0497	0.0876	0.00201	<0.00200	0.00200			
Chloride by EPA 300	***Extracted:***	Jan-24-20 16:12		Jan-24-20 16:12		Jan-24-20 16:12				
	Analyzed:	Jan-25-20 11:00		Jan-25-20 11:05		Jan-25-20 11:10				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		5400 D	200	182	10.0	22.1	10.0			
TPH by SW8015 Mod	***Extracted:***	Jan-24-20 13:50		Jan-24-20 13:50		Jan-24-20 13:50				
	Analyzed:	Jan-27-20 09:47		Jan-24-20 22:30		Jan-24-20 22:51				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		1950	249	<50.2	50.2	<50.1	50.1			
Diesel Range Organics (DRO)		18300	249	202	50.2	<50.1	50.1			
Motor Oil Range Hydrocarbons (MRO)		1750	249	<50.2	50.2	<50.1	50.1			
Total GRO-DRO		20300	249	202	50.2	<50.1	50.1			
Total TPH		22000	249	202	50.2	<50.1	50.1			

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-001	Date Collected:	01.23.20 11.43	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8230**	198	mg/kg	01.25.20 13.16	D	20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2020**	50.3	mg/kg	01.24.20 21.10		1
Diesel Range Organics (DRO)	C10C28DRO	**3770**	50.3	mg/kg	01.24.20 21.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**432**	50.3	mg/kg	01.24.20 21.10		1
Total GRO-DRO	PHC628	**5790**	50.3	mg/kg	01.24.20 21.10		1
Total TPH	PHC635	**6220**	50.3	mg/kg	01.24.20 21.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	01.24.20 21.10	
o-Terphenyl	84-15-1	105	%	70-135	01.24.20 21.10	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-001	Date Collected:	01.23.20 11.43	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 11.00	Basis:	Wet Weight
Seq Number:	3114405				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.16**	0.200	mg/kg	01.25.20 12.03		100
Toluene	108-88-3	**21.2**	0.200	mg/kg	01.25.20 12.03		100
Ethylbenzene	100-41-4	**9.05**	0.200	mg/kg	01.25.20 12.03		100
m,p-Xylenes	179601-23-1	**29.5**	0.399	mg/kg	01.25.20 12.03		100
o-Xylene	95-47-6	**11.6**	0.200	mg/kg	01.25.20 12.03		100
Total Xylenes	1330-20-7	**41.1**	0.200	mg/kg	01.25.20 12.03		100
Total BTEX		**72.5**	0.200	mg/kg	01.25.20 12.03		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.25.20 12.03	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.25.20 12.03	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-002	Date Collected:	01.23.20 11.49	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9310**	200	mg/kg	01.25.20 10.15		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**212**	49.8	mg/kg	01.24.20 21.31		1
Diesel Range Organics (DRO)	C10C28DRO	**1330**	49.8	mg/kg	01.24.20 21.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**107**	49.8	mg/kg	01.24.20 21.31		1
Total GRO-DRO	PHC628	**1540**	49.8	mg/kg	01.24.20 21.31		1
Total TPH	PHC635	**1650**	49.8	mg/kg	01.24.20 21.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	01.24.20 21.31	
o-Terphenyl	84-15-1	98	%	70-135	01.24.20 21.31	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-002	Date Collected:	01.23.20 11.49	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 11.00	Basis:	Wet Weight
Seq Number:	3114405				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0332**	0.0200	mg/kg	01.25.20 11.43		1
Toluene	108-88-3	**1.35**	0.0200	mg/kg	01.25.20 11.43		1
Ethylbenzene	100-41-4	**0.887**	0.0200	mg/kg	01.25.20 11.43		1
m,p-Xylenes	179601-23-1	**3.00**	0.0401	mg/kg	01.25.20 11.43		1
o-Xylene	95-47-6	**1.54**	0.0200	mg/kg	01.25.20 11.43		1
Total Xylenes	1330-20-7	**4.54**	0.0200	mg/kg	01.25.20 11.43		1
Total BTEX		**6.81**	0.0200	mg/kg	01.25.20 11.43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.25.20 11.43	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.25.20 11.43	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-003	Date Collected:	01.23.20 12.55	Sample Depth:	7.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2650**	200	mg/kg	01.25.20 10.20		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.24.20 21.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	**748**	50.3	mg/kg	01.24.20 21.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**115**	50.3	mg/kg	01.24.20 21.31		1
Total GRO-DRO	PHC628	**748**	50.3	mg/kg	01.24.20 21.31		1
Total TPH	PHC635	**863**	50.3	mg/kg	01.24.20 21.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.24.20 21.31	
o-Terphenyl	84-15-1	98	%	70-135	01.24.20 21.31	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH01B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-003	Date Collected:	01.23.20 12.55	Sample Depth:	7.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0102	0.0102	mg/kg	01.25.20 12.24	U	1
Toluene	108-88-3	**0.0936**	0.0204	mg/kg	01.25.20 12.24		1
Ethylbenzene	100-41-4	**0.0611**	0.0204	mg/kg	01.25.20 12.24		1
m,p-Xylenes	179601-23-1	**0.218**	0.0408	mg/kg	01.25.20 12.24		1
o-Xylene	95-47-6	**0.116**	0.0204	mg/kg	01.25.20 12.24		1
Total Xylenes	1330-20-7	**0.334**	0.0204	mg/kg	01.25.20 12.24		1
Total BTEX		**0.489**	0.0102	mg/kg	01.25.20 12.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.25.20 12.24	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.25.20 12.24	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-004	Date Collected:	01.23.20 13.56	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13700**	202	mg/kg	01.25.20 10.35		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**368**	50.3	mg/kg	01.24.20 21.51		1
Diesel Range Organics (DRO)	C10C28DRO	**1990**	50.3	mg/kg	01.24.20 21.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**168**	50.3	mg/kg	01.24.20 21.51		1
Total GRO-DRO	PHC628	**2360**	50.3	mg/kg	01.24.20 21.51		1
Total TPH	PHC635	**2530**	50.3	mg/kg	01.24.20 21.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	01.24.20 21.51	
o-Terphenyl	84-15-1	99	%	70-135	01.24.20 21.51	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-004	Date Collected:	01.23.20 13.56	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.137**	0.0196	mg/kg	01.25.20 12.44		1
Toluene	108-88-3	**2.53**	0.0196	mg/kg	01.25.20 12.44		1
Ethylbenzene	100-41-4	**1.78**	0.0196	mg/kg	01.25.20 12.44		1
m,p-Xylenes	179601-23-1	**6.14**	0.0392	mg/kg	01.25.20 12.44		1
o-Xylene	95-47-6	**3.07**	0.0196	mg/kg	01.25.20 12.44		1
Total Xylenes	1330-20-7	**9.21**	0.0196	mg/kg	01.25.20 12.44		1
Total BTEX		**13.7**	0.0196	mg/kg	01.25.20 12.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	01.25.20 12.44	
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.25.20 12.44	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-005	Date Collected:	01.23.20 14.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13500**	200	mg/kg	01.25.20 13.21	D	20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.24.20 21.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**207**	50.1	mg/kg	01.24.20 21.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.24.20 21.51	U	1
Total GRO-DRO	PHC628	**207**	50.1	mg/kg	01.24.20 21.51		1
Total TPH	PHC635	**207**	50.1	mg/kg	01.24.20 21.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	01.24.20 21.51	
o-Terphenyl	84-15-1	104	%	70-135	01.24.20 21.51	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-005	Date Collected:	01.23.20 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0212**	0.0201	mg/kg	01.25.20 13.05		1
Toluene	108-88-3	**0.220**	0.0201	mg/kg	01.25.20 13.05		1
Ethylbenzene	100-41-4	**0.126**	0.0201	mg/kg	01.25.20 13.05		1
m,p-Xylenes	179601-23-1	**0.460**	0.0402	mg/kg	01.25.20 13.05		1
o-Xylene	95-47-6	**0.249**	0.0201	mg/kg	01.25.20 13.05		1
Total Xylenes	1330-20-7	**0.709**	0.0201	mg/kg	01.25.20 13.05		1
Total BTEX		**1.08**	0.0201	mg/kg	01.25.20 13.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.25.20 13.05	
4-Bromofluorobenzene	460-00-4	127	%	70-130	01.25.20 13.05	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-006	Date Collected:	01.23.20 14.20	Sample Depth:	6.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**235**	10.1	mg/kg	01.25.20 10.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.24.20 22.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	**161**	50.1	mg/kg	01.24.20 22.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.24.20 22.10	U	1
Total GRO-DRO	PHC628	**161**	50.1	mg/kg	01.24.20 22.10		1
Total TPH	PHC635	**161**	50.1	mg/kg	01.24.20 22.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.24.20 22.10	
o-Terphenyl	84-15-1	94	%	70-135	01.24.20 22.10	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH02B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-006	Date Collected:	01.23.20 14.20	Sample Depth:	6.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0107**	0.00980	mg/kg	01.25.20 03.18		1
Toluene	108-88-3	**0.0691**	0.0196	mg/kg	01.25.20 03.18		1
Ethylbenzene	100-41-4	**0.0521**	0.0196	mg/kg	01.25.20 03.18		1
m,p-Xylenes	179601-23-1	**0.203**	0.0392	mg/kg	01.25.20 03.18		1
o-Xylene	95-47-6	**0.112**	0.0196	mg/kg	01.25.20 03.18		1
Total Xylenes	1330-20-7	**0.315**	0.0196	mg/kg	01.25.20 03.18		1
Total BTEX		**0.447**	0.00980	mg/kg	01.25.20 03.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.25.20 03.18	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.25.20 03.18	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-007	Date Collected:	01.23.20 14.32	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5400**	200	mg/kg	01.25.20 13.27	D	20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1950**	249	mg/kg	01.27.20 09.47		5
Diesel Range Organics (DRO)	C10C28DRO	**18300**	249	mg/kg	01.27.20 09.47		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1750**	249	mg/kg	01.27.20 09.47		5
Total GRO-DRO	PHC628	**20300**	249	mg/kg	01.27.20 09.47		5
Total TPH	PHC635	**22000**	249	mg/kg	01.27.20 09.47		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	137	%	70-135	01.27.20 09.47	**
o-Terphenyl	84-15-1	108	%	70-135	01.27.20 09.47	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-007	Date Collected:	01.23.20 14.32	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0755**	0.0497	mg/kg	01.25.20 13.25		100
Toluene	108-88-3	**0.883**	0.199	mg/kg	01.25.20 13.25		100
Ethylbenzene	100-41-4	**1.14**	0.199	mg/kg	01.25.20 13.25		100
m,p-Xylenes	179601-23-1	**5.16**	0.398	mg/kg	01.25.20 13.25		100
o-Xylene	95-47-6	**4.51**	0.199	mg/kg	01.25.20 13.25		100
Total Xylenes	1330-20-7	**9.67**	0.199	mg/kg	01.25.20 13.25		100
Total BTEX		**11.8**	0.0497	mg/kg	01.25.20 13.25		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.25.20 13.25	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.25.20 13.25	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-008	Date Collected:	01.23.20 14.37	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**182**	10.0	mg/kg	01.25.20 11.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.24.20 22.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**202**	50.2	mg/kg	01.24.20 22.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.24.20 22.30	U	1
Total GRO-DRO	PHC628	**202**	50.2	mg/kg	01.24.20 22.30		1
Total TPH	PHC635	**202**	50.2	mg/kg	01.24.20 22.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	01.24.20 22.30	
o-Terphenyl	84-15-1	99	%	70-135	01.24.20 22.30	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-008	Date Collected:	01.23.20 14.37	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.20 03.38	U	1
Toluene	108-88-3	**0.00754**	0.00201	mg/kg	01.25.20 03.38		1
Ethylbenzene	100-41-4	**0.0108**	0.00201	mg/kg	01.25.20 03.38		1
m,p-Xylenes	179601-23-1	**0.0213**	0.00402	mg/kg	01.25.20 03.38		1
o-Xylene	95-47-6	**0.0480**	0.00201	mg/kg	01.25.20 03.38		1
Total Xylenes	1330-20-7	**0.0693**	0.00201	mg/kg	01.25.20 03.38		1
Total BTEX		**0.0876**	0.00201	mg/kg	01.25.20 03.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.25.20 03.38	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.25.20 03.38	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-009	Date Collected:	01.23.20 15.17	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 16.12	Basis:	Wet Weight
Seq Number:	3114410				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.1**	10.0	mg/kg	01.25.20 11.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 13.50	Basis:	Wet Weight
Seq Number:	3114477				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.24.20 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.24.20 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.24.20 22.51	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.24.20 22.51	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.24.20 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.24.20 22.51	
o-Terphenyl	84-15-1	97	%	70-135	01.24.20 22.51	

Certificate of Analytical Results 650230

LT Environmental, Inc., Arvada, CO

JRU - DI1- 163H

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	01.24.20 09.40
Lab Sample Id:	650230-009	Date Collected:	01.23.20 15.17	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.25.20 01.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.20 01.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	01.25.20 01.56	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.25.20 01.56	

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 650230

LT Environmental, Inc.

JRU - DI1- 163H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114410 — Matrix: Solid — Date Prep: 01.24.20
MB Sample Id: 7695159-1-BLK — LCS Sample Id: 7695159-1-BKS — LCSD Sample Id: 7695159-1-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	246	98	247	99	90-110	0	20	mg/kg	01.25.20 08:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114410 — Matrix: Soil — Date Prep: 01.24.20
Parent Sample Id: 650197-009 — MS Sample Id: 650197-009 S — MSD Sample Id: 650197-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	672	199	881	105	886	108	90-110	1	20	mg/kg	01.25.20 09:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114410 — Matrix: Soil — Date Prep: 01.24.20
Parent Sample Id: 650230-003 — MS Sample Id: 650230-003 S — MSD Sample Id: 650230-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2650	200	2780	65	2780	65	90-110	0	20	mg/kg	01.25.20 10:25	X

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3114477 — Matrix: Solid — Date Prep: 01.24.20
MB Sample Id: 7695142-1-BLK — LCS Sample Id: 7695142-1-BKS — LCSD Sample Id: 7695142-1-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	1070	107	999	100	70-135	7	35	mg/kg	01.24.20 18:50	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1100	110	70-135	6	35	mg/kg	01.24.20 18:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	79		115		105		70-135	%	01.24.20 18:50
o-Terphenyl	77		102		91		70-135	%	01.24.20 18:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3114477 — Matrix: Solid — Date Prep: 01.24.20
MB Sample Id: 7695142-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.24.20 18:50	

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 650230

LT Environmental, Inc.

JRU - DI1- 163H

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3114477 | Matrix: Soil | Date Prep: 01.24.20
Parent Sample Id: 650186-013 | MS Sample Id: 650186-013 S | MSD Sample Id: 650186-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1020	102	1020	102	70-135	0	35	mg/kg	01.24.20 19:30	
Diesel Range Organics (DRO)	<50.2	1000	974	97	999	100	70-135	3	35	mg/kg	01.24.20 19:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	01.24.20 19:30
o-Terphenyl	103		106		70-135	%	01.24.20 19:30

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3114405 | Matrix: Solid | Date Prep: 01.24.20
MB Sample Id: 7695152-1-BLK | LCS Sample Id: 7695152-1-BKS | LCSD Sample Id: 7695152-1-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	0.102	102	70-130	4	35	mg/kg	01.24.20 13:14	
Toluene	<0.00200	0.100	0.102	102	0.0995	100	70-130	2	35	mg/kg	01.24.20 13:14	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0976	98	71-129	2	35	mg/kg	01.24.20 13:14	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.200	100	70-135	2	35	mg/kg	01.24.20 13:14	
o-Xylene	<0.00200	0.100	0.100	100	0.0992	99	71-133	1	35	mg/kg	01.24.20 13:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		102		70-130	%	01.24.20 13:14
4-Bromofluorobenzene	97		95		97		70-130	%	01.24.20 13:14

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3114415 | Matrix: Solid | Date Prep: 01.24.20
MB Sample Id: 7695153-1-BLK | LCS Sample Id: 7695153-1-BKS | LCSD Sample Id: 7695153-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.0996	100	70-130	1	35	mg/kg	01.25.20 00:14	
Toluene	<0.00200	0.100	0.0977	98	0.0946	95	70-130	3	35	mg/kg	01.25.20 00:14	
Ethylbenzene	<0.00200	0.100	0.0940	94	0.0899	90	71-129	4	35	mg/kg	01.25.20 00:14	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.183	92	70-135	5	35	mg/kg	01.25.20 00:14	
o-Xylene	<0.00200	0.100	0.0962	96	0.0923	92	71-133	4	35	mg/kg	01.25.20 00:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		104		70-130	%	01.25.20 00:14
4-Bromofluorobenzene	96		95		99		70-130	%	01.25.20 00:14

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

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

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

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

Final 1.000

QC Summary 650230

LT Environmental, Inc.

JRU - DI1- 163H

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

Seq Number: 3114405 Matrix: Soil Date Prep: 01.24.20

Parent Sample Id: 650186-001 MS Sample Id: 650186-001 S MSD Sample Id: 650186-001 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	0.115	115	0.108	108	70-130	6	35	mg/kg	01.24.20 13:54	
Toluene	<0.00200	0.100	0.110	110	0.104	104	70-130	6	35	mg/kg	01.24.20 13:54	
Ethylbenzene	<0.00200	0.100	0.105	105	0.0976	98	71-129	7	35	mg/kg	01.24.20 13:54	
m,p-Xylenes	<0.00401	0.200	0.215	108	0.200	100	70-135	7	35	mg/kg	01.24.20 13:54	
o-Xylene	<0.00200	0.100	0.107	107	0.0997	100	71-133	7	35	mg/kg	01.24.20 13:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	01.24.20 13:54
4-Bromofluorobenzene	97		98		70-130	%	01.24.20 13:54

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

Seq Number: 3114415 Matrix: Soil Date Prep: 01.24.20

Parent Sample Id: 650230-009 MS Sample Id: 650230-009 S MSD Sample Id: 650230-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.0885	89	70-130	23	35	mg/kg	01.25.20 00:55	
Toluene	<0.00199	0.0996	0.107	107	0.0807	81	70-130	28	35	mg/kg	01.25.20 00:55	
Ethylbenzene	0.000980	0.0996	0.101	100	0.0726	72	71-129	33	35	mg/kg	01.25.20 00:55	
m,p-Xylenes	0.00333	0.199	0.206	102	0.148	72	70-135	33	35	mg/kg	01.25.20 00:55	
o-Xylene	0.00167	0.0996	0.103	102	0.0757	74	71-133	31	35	mg/kg	01.25.20 00:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	01.25.20 00:55
4-Bromofluorobenzene	96		100		70-130	%	01.25.20 00:55

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

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

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

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

Final 1.000

Page 1079 of 1119

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: 450230

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-DI1-163H	Turn Around	
Project Number:	12919259	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.0	Thermometer ID		
Received Intact:	(Yes) No		TNM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	9	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8=8021)	Chloride (EPA 300.0)	Sample Comments
BH01	s	1/23/2020	11:43	0.5'	1	x	x	x	discrete
BH01A	s	1/23/2020	11:49	2'	1	x	x	x	discrete
BH01B	s	1/23/2020	12:55	7.5'	1	x	x	x	discrete
BH02	s	1/23/2020	13:56	0.5'	1	x	x	x	discrete
BH02A	s	1/23/2020	14:00	2'	1	x	x	x	discrete
BH02B	s	1/23/2020	14:20	6.5'	1	x	x	x	discrete
BH03	s	1/23/2020	14:32	0.5'	1	x	x	x	discrete
BH03A	s	1/23/2020	14:37	2'	1	x	x	x	discrete
BH03B	s	1/23/2020	15:14	8'	1	x	x	x	discrete

Work Order Notes

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	1	01/24/20 09:40	4		
2	2		5		
3	3		6		

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 29 of 30

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.24.2020 09.40.00 AM

Work Order #: 650230

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 01.24.2020

Checklist reviewed by: Jessica Kramer Date: 01.24.2020

Jessica Kramer

Analytical Report 650282

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU -DI1-163H

012919259

29-JAN-20

Collected By: Client



1089 N Canal Street
Carlsbad, NM 88220

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

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

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)

29-JAN-20

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

Reference: XENCO Report No(s): **650282**
JRU -DI1-163H
Project Address: Eddy

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) 650282. 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. 650282 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 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH04	S	01-24-20 09:51	1 ft	650282-001
BH04A	S	01-24-20 10:03	4 ft	650282-002
BH04B	S	01-24-20 10:18	8 ft	650282-003
BH05	S	01-24-20 10:26	1 ft	650282-004
BH05A	S	01-24-20 10:35	4 ft	650282-005
BH05B	S	01-24-20 10:53	8 ft	650282-006
BH06	S	01-24-20 11:03	1 ft	650282-007
BH06A	S	01-24-20 11:22	4 ft	650282-008
BH06B	S	01-24-20 11:45	7.5 ft	650282-009
BH07	S	01-24-20 12:42	1 ft	650282-010
BH07A	S	01-24-20 12:55	4 ft	650282-011
BH07B	S	01-24-20 13:18	8 ft	650282-012

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU -DI1-163H

Project ID: *012919259*
Work Order Number(s): *650282*

Report Date: *29-JAN-20*
Date Received: *01/24/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114406 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3114415 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 650282

LT Environmental, Inc., Arvada, CO

Project Name: JRU -DI1-163H

Project Id: 012919259
Contact: Dan Moir
Project Location: Eddy

Date Received in Lab: Fri Jan-24-20 04:19 pm
Report Date: 29-JAN-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	650282-001		650282-002		650282-003		650282-004		650282-005		650282-006	
	Field Id:	BH04		BH04A		BH04B		BH05		BH05A		BH05B	
	Depth:	1- ft		4- ft		8- ft		1- ft		4- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-24-20 09:51		Jan-24-20 10:03		Jan-24-20 10:18		Jan-24-20 10:26		Jan-24-20 10:35		Jan-24-20 10:53	
BTEX by EPA 8021B	***Extracted:***	** ** ** **		** ** ** **		** ** ** **		** ** ** **		Jan-24-20 19:18		Jan-24-20 19:18	
	Analyzed:	Jan-25-20 08:38		Jan-25-20 08:58		Jan-25-20 09:19		Jan-25-20 09:39		Jan-24-20 23:32		Jan-24-20 23:53	
	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	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
Toluene		<0.00198	0.00198	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
Ethylbenzene		<0.00198	0.00198	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
m,p-Xylenes		<0.00396	0.00396	<0.00402	0.00402	<0.00402	0.00402	<0.00404	0.00404	<0.00398	0.00398	<0.00403	0.00403
o-Xylene		<0.00198	0.00198	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
Total Xylenes		<0.00198	0.00198	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
Total BTEX		<0.00198	0.00198	<0.00201	0.00201	<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202
Chloride by EPA 300	***Extracted:***	Jan-27-20 19:15		Jan-27-20 19:15		Jan-27-20 19:15		Jan-27-20 19:15		Jan-27-20 19:15		Jan-28-20 09:20	
	Analyzed:	Jan-28-20 12:22		Jan-28-20 12:27		Jan-28-20 12:32		Jan-28-20 12:37		Jan-28-20 12:42		Jan-28-20 13:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		13.8	9.98	<10.0	10.0	<10.1	10.1	43.5	10.0	12.7	10.1	19.6	9.98
TPH by SW8015 Mod	***Extracted:***	Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00	
	Analyzed:	Jan-25-20 05:46		Jan-25-20 06:06		Jan-25-20 06:06		Jan-25-20 06:25		Jan-25-20 06:25		Jan-25-20 06:45	
	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	<49.8	49.8	<50.2	50.2	<50.1	50.1
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<50.1	50.1
Total GRO-DRO		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<50.1	50.1
Total TPH		<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.2	50.2	<50.1	50.1

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 650282

LT Environmental, Inc., Arvada, CO

Project Name: JRU -DI1-163H

Project Id: 012919259
Contact: Dan Moir
Project Location: Eddy

Date Received in Lab: Fri Jan-24-20 04:19 pm
Report Date: 29-JAN-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	650282-007		650282-008		650282-009		650282-010		650282-011		650282-012	
	Field Id:	BH06		BH06A		BH06B		BH07		BH07A		BH07B	
	Depth:	1- ft		4- ft		7.5- ft		1- ft		4- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-24-20 11:03		Jan-24-20 11:22		Jan-24-20 11:45		Jan-24-20 12:42		Jan-24-20 12:55		Jan-24-20 13:18	
BTEX by EPA 8021B	*Extracted:*	Jan-24-20 19:18		Jan-24-20 19:18		Jan-24-20 19:18		Jan-24-20 19:18		Jan-24-20 19:18		Jan-24-20 19:18	
	Analyzed:	Jan-25-20 00:13		Jan-25-20 00:34		Jan-25-20 00:54		Jan-25-20 01:14		Jan-25-20 01:35		Jan-24-20 23:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00404	0.00404	<0.00399	0.00399	<0.00399	0.00399	<0.00402	0.00402	<0.00399	0.00399
o-Xylene		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	Jan-28-20 09:20		Jan-28-20 09:20		Jan-28-20 09:20		Jan-28-20 09:20		Jan-28-20 09:20		Jan-28-20 09:20	
	Analyzed:	Jan-28-20 13:26		Jan-28-20 13:31		Jan-28-20 13:35		Jan-28-20 13:40		Jan-28-20 13:45		Jan-28-20 13:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<10.1	10.1	<10.0	10.0	<10.0	10.0	18.4	9.98	<10.0	10.0	<10.0	10.0
TPH by SW8015 Mod	*Extracted:*	Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00		Jan-24-20 18:00	
	Analyzed:	Jan-25-20 07:04		Jan-25-20 07:04		Jan-25-20 07:24		Jan-25-20 07:24		Jan-25-20 07:44		Jan-25-20 07:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.0	50.0
Diesel Range Organics (DRO)		<50.1	50.1	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.0	50.0
Total GRO-DRO		<50.1	50.1	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.0	50.0
Total TPH		<50.1	50.1	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.1	50.1	<50.0	50.0

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-001	Date Collected:	01.24.20 09.51	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.27.20 19.15	Basis:	Wet Weight
Seq Number:	3114725				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.8**	9.98	mg/kg	01.28.20 12.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.25.20 05.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.25.20 05.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.25.20 05.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.25.20 05.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.25.20 05.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	01.25.20 05.46	
o-Terphenyl	84-15-1	102	%	70-135	01.25.20 05.46	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-001	Date Collected:	01.24.20 09.51	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.25.20 08.38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.25.20 08.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.25.20 08.38	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.25.20 08.38	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-002	Date Collected:	01.24.20 10.03	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.27.20 19.15	Basis:	Wet Weight
Seq Number:	3114725				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.28.20 12.27	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 06.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.25.20 06.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.25.20 06.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.25.20 06.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.25.20 06.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.25.20 06.06	
o-Terphenyl	84-15-1	108	%	70-135	01.25.20 06.06	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-002	Date Collected:	01.24.20 10.03	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.25.20 08.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.25.20 08.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.25.20 08.58	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.25.20 08.58	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-003	Date Collected:	01.24.20 10.18	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.27.20 19.15	Basis:	Wet Weight
Seq Number:	3114725				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	01.28.20 12.32	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.25.20 06.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.25.20 06.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.25.20 06.06	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.25.20 06.06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.25.20 06.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.25.20 06.06	
o-Terphenyl	84-15-1	103	%	70-135	01.25.20 06.06	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH04B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-003	Date Collected:	01.24.20 10.18	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.25.20 09.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.25.20 09.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.25.20 09.19	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.25.20 09.19	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-004	Date Collected:	01.24.20 10.26	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.27.20 19.15	Basis:	Wet Weight
Seq Number:	3114725				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.5**	10.0	mg/kg	01.28.20 12.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.25.20 06.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.25.20 06.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.25.20 06.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.25.20 06.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.25.20 06.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.25.20 06.25	
o-Terphenyl	84-15-1	103	%	70-135	01.25.20 06.25	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-004	Date Collected:	01.24.20 10.26	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 15.00	Basis:	Wet Weight
Seq Number:	3114415				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.25.20 09.39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.25.20 09.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.25.20 09.39	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.25.20 09.39	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-005	Date Collected:	01.24.20 10.35	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.27.20 19.15	Basis:	Wet Weight
Seq Number:	3114725				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.7**	10.1	mg/kg	01.28.20 12.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.25.20 06.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.25.20 06.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.25.20 06.25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.25.20 06.25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.25.20 06.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.25.20 06.25	
o-Terphenyl	84-15-1	105	%	70-135	01.25.20 06.25	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-005	Date Collected:	01.24.20 10.35	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.24.20 23.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.24.20 23.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.24.20 23.32	
4-Bromofluorobenzene	460-00-4	94	%	70-130	01.24.20 23.32	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-006	Date Collected:	01.24.20 10.53	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.6**	9.98	mg/kg	01.28.20 13.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.25.20 06.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.25.20 06.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.25.20 06.45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.25.20 06.45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.25.20 06.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.25.20 06.45	
o-Terphenyl	84-15-1	105	%	70-135	01.25.20 06.45	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH05B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-006	Date Collected:	01.24.20 10.53	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.24.20 23.53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.24.20 23.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.24.20 23.53	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.24.20 23.53	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-007	Date Collected:	01.24.20 11.03	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	01.28.20 13.26	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.25.20 07.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.25.20 07.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.25.20 07.04	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.25.20 07.04	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.25.20 07.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.25.20 07.04	
o-Terphenyl	84-15-1	106	%	70-135	01.25.20 07.04	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-007	Date Collected:	01.24.20 11.03	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.25.20 00.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.25.20 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.25.20 00.13	
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.25.20 00.13	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-008	Date Collected:	01.24.20 11.22	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.28.20 13.31	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.25.20 07.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.25.20 07.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.25.20 07.04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.25.20 07.04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.25.20 07.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.25.20 07.04	
o-Terphenyl	84-15-1	107	%	70-135	01.25.20 07.04	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-008	Date Collected:	01.24.20 11.22	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.25.20 00.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.25.20 00.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.25.20 00.34	
4-Bromofluorobenzene	460-00-4	93	%	70-130	01.25.20 00.34	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-009	Date Collected:	01.24.20 11.45	Sample Depth:	7.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.28.20 13.35	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 07.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.25.20 07.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.25.20 07.24	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.25.20 07.24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.25.20 07.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.25.20 07.24	
o-Terphenyl	84-15-1	105	%	70-135	01.25.20 07.24	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH06B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-009	Date Collected:	01.24.20 11.45	Sample Depth:	7.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.20 00.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.20 00.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	01.25.20 00.54	
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.25.20 00.54	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-010	Date Collected:	01.24.20 12.42	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.4**	9.98	mg/kg	01.28.20 13.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.25.20 07.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.25.20 07.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.25.20 07.24	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.25.20 07.24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.25.20 07.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.25.20 07.24	
o-Terphenyl	84-15-1	113	%	70-135	01.25.20 07.24	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-010	Date Collected:	01.24.20 12.42	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.20 01.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.20 01.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.25.20 01.14	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.25.20 01.14	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-011	Date Collected:	01.24.20 12.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.28.20 13.45	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.25.20 07.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.25.20 07.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.25.20 07.44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.25.20 07.44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.25.20 07.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.25.20 07.44	
o-Terphenyl	84-15-1	106	%	70-135	01.25.20 07.44	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-011	Date Collected:	01.24.20 12.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.25.20 01.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.25.20 01.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.25.20 01.35	
1,4-Difluorobenzene	540-36-3	109	%	70-130	01.25.20 01.35	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-012	Date Collected:	01.24.20 13.18	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.28.20 09.20	Basis:	Wet Weight
Seq Number:	3114737				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.28.20 13.50	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	01.24.20 18.00	Basis:	Wet Weight
Seq Number:	3114501				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.25.20 07.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.25.20 07.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.25.20 07.44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.25.20 07.44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.25.20 07.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.25.20 07.44	
o-Terphenyl	84-15-1	104	%	70-135	01.25.20 07.44	

Certificate of Analytical Results 650282

LT Environmental, Inc., Arvada, CO

JRU -DI1-163H

Sample Id:	**BH07B**	Matrix:	Soil	Date Received:	01.24.20 16.19
Lab Sample Id:	650282-012	Date Collected:	01.24.20 13.18	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	01.24.20 19.18	Basis:	Wet Weight
Seq Number:	3114406				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.24.20 23.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.24.20 23.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.24.20 23.12	
1,4-Difluorobenzene	540-36-3	110	%	70-130	01.24.20 23.12	

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 650282

LT Environmental, Inc.

JRU -DI1-163H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114725 — Matrix: Solid — Date Prep: 01.27.20
MB Sample Id: 7695322-1-BLK — LCS Sample Id: 7695322-1-BKS — LCSD Sample Id: 7695322-1-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	252	101	253	101	90-110	0	20	mg/kg	01.28.20 09:20	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114737 — Matrix: Solid — Date Prep: 01.28.20
MB Sample Id: 7695325-1-BLK — LCS Sample Id: 7695325-1-BKS — LCSD Sample Id: 7695325-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	249	100	90-110	0	20	mg/kg	01.28.20 13:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114725 — Matrix: Soil — Date Prep: 01.27.20
Parent Sample Id: 650281-005 — MS Sample Id: 650281-005 S — MSD Sample Id: 650281-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3360	203	3510	74	3530	85	90-110	1	20	mg/kg	01.28.20 11:43	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114725 — Matrix: Soil — Date Prep: 01.27.20
Parent Sample Id: 650328-011 — MS Sample Id: 650328-011 S — MSD Sample Id: 650328-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.84	200	205	101	202	100	90-110	1	20	mg/kg	01.28.20 09:35	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3114737 — Matrix: Soil — Date Prep: 01.28.20
Parent Sample Id: 650282-006 — MS Sample Id: 650282-006 S — MSD Sample Id: 650282-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.6	200	215	98	209	95	90-110	3	20	mg/kg	01.28.20 13:16	

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 650282

LT Environmental, Inc.

JRU -DI1-163H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3114737 Matrix: Soil Date Prep: 01.28.20
Parent Sample Id: 650481-001 MS Sample Id: 650481-001 S MSD Sample Id: 650481-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.96	198	187	93	182	91	90-110	3	20	mg/kg	01.28.20 14:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3114501 Matrix: Solid Date Prep: 01.24.20
MB Sample Id: 7695250-1-BLK LCS Sample Id: 7695250-1-BKS LCSD Sample Id: 7695250-1-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	1080	108	1170	117	70-135	8	35	mg/kg	01.25.20 04:28	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1160	116	70-135	11	35	mg/kg	01.25.20 04:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		115		126		70-135	%	01.25.20 04:28
o-Terphenyl	98		102		111		70-135	%	01.25.20 04:28

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3114501 Matrix: Solid Date Prep: 01.24.20
MB Sample Id: 7695250-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.25.20 04:08	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3114501 Matrix: Soil Date Prep: 01.24.20
Parent Sample Id: 650281-005 MS Sample Id: 650281-005 S MSD Sample Id: 650281-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1060	106	1060	106	70-135	0	35	mg/kg	01.25.20 04:47	
Diesel Range Organics (DRO)	<49.9	997	1030	103	1020	102	70-135	1	35	mg/kg	01.25.20 04:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		128		70-135	%	01.25.20 04:47
o-Terphenyl	113		113		70-135	%	01.25.20 04:47

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

QC Summary 650282

LT Environmental, Inc.

JRU -DI1-163H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3114415 — Matrix: Solid — Date Prep: 01.24.20
MB Sample Id: 7695153-1-BLK — LCS Sample Id: 7695153-1-BKS — LCSD Sample Id: 7695153-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.0996	100	70-130	1	35	mg/kg	01.25.20 00:14	
Toluene	<0.00200	0.100	0.0977	98	0.0946	95	70-130	3	35	mg/kg	01.25.20 00:14	
Ethylbenzene	<0.00200	0.100	0.0940	94	0.0899	90	71-129	4	35	mg/kg	01.25.20 00:14	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.183	92	70-135	5	35	mg/kg	01.25.20 00:14	
o-Xylene	<0.00200	0.100	0.0962	96	0.0923	92	71-133	4	35	mg/kg	01.25.20 00:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		104		70-130	%	01.25.20 00:14
4-Bromofluorobenzene	96		95		99		70-130	%	01.25.20 00:14

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3114406 — Matrix: Solid — Date Prep: 01.24.20
MB Sample Id: 7695177-1-BLK — LCS Sample Id: 7695177-1-BKS — LCSD Sample Id: 7695177-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.120	120	70-130	11	35	mg/kg	01.24.20 21:30	
Toluene	<0.00200	0.100	0.0982	98	0.110	110	70-130	11	35	mg/kg	01.24.20 21:30	
Ethylbenzene	<0.00200	0.100	0.0948	95	0.107	107	71-129	12	35	mg/kg	01.24.20 21:30	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.209	105	70-135	12	35	mg/kg	01.24.20 21:30	
o-Xylene	<0.00200	0.100	0.0935	94	0.105	105	71-133	12	35	mg/kg	01.24.20 21:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		106		108		70-130	%	01.24.20 21:30
4-Bromofluorobenzene	89		90		92		70-130	%	01.24.20 21:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3114415 — Matrix: Soil — Date Prep: 01.24.20
Parent Sample Id: 650230-009 — MS Sample Id: 650230-009 S — MSD Sample Id: 650230-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.0885	89	70-130	23	35	mg/kg	01.25.20 00:55	
Toluene	<0.00199	0.0996	0.107	107	0.0807	81	70-130	28	35	mg/kg	01.25.20 00:55	
Ethylbenzene	0.000980	0.0996	0.101	100	0.0726	72	71-129	33	35	mg/kg	01.25.20 00:55	
m,p-Xylenes	0.00333	0.199	0.206	102	0.148	72	70-135	33	35	mg/kg	01.25.20 00:55	
o-Xylene	0.00167	0.0996	0.103	102	0.0757	74	71-133	31	35	mg/kg	01.25.20 00:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	01.25.20 00:55
4-Bromofluorobenzene	96		100		70-130	%	01.25.20 00:55

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 650282

LT Environmental, Inc.

JRU -DI1-163H

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

Seq Number: 3114406 Matrix: Soil Date Prep: 01.24.20

Parent Sample Id: 650282-012 MS Sample Id: 650282-012 S MSD Sample Id: 650282-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.103	104	0.108	108	70-130	5	35	mg/kg	01.24.20 22:11	
Toluene	<0.00198	0.0992	0.0940	95	0.0982	99	70-130	4	35	mg/kg	01.24.20 22:11	
Ethylbenzene	<0.00198	0.0992	0.0909	92	0.0944	95	71-129	4	35	mg/kg	01.24.20 22:11	
m,p-Xylenes	<0.00397	0.198	0.178	90	0.185	93	70-135	4	35	mg/kg	01.24.20 22:11	
o-Xylene	<0.00198	0.0992	0.0898	91	0.0934	94	71-133	4	35	mg/kg	01.24.20 22:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	01.24.20 22:11
4-Bromofluorobenzene	95		95		70-130	%	01.24.20 22:11

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

Page 1116 of 1119

Chain of Custody

Work Order No: 650282

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 2

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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:		wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-DI1-163H	Turn Around	
Project Number:	12919259	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	4.0	Thermometer ID	T-NM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	12	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8=8021)	Chloride (EPA 300.0)	Sample Comments
BH04	s	1/24/2020	9:51	1'	1	x	x	x	discrete
BH04A	s	1/24/2020	10:03	4'	1	x	x	x	discrete
BH04B	s	1/24/2020	10:18	8'	1	x	x	x	discrete
BH05	s	1/24/2020	10:26	1'	1	x	x	x	discrete
BH05A	s	1/24/2020	10:35	4'	1	x	x	x	discrete
BH05B	s	1/24/2020	10:53	8'	1	x	x	x	discrete
BH06	s	1/24/2020	11:03	1'	1	x	x	x	discrete
BH06A	s	1/24/2020	11:22	4'	1	x	x	x	discrete
BH06B	s	1/24/2020	11:45	7.5'	1	x	x	x	discrete
BH07	s	1/24/2020	12:42	1'	1	x	x	x	discrete

Work Order Notes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/24/20 10:19	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM
Final 1.000
Page 36 of 38

Page 1117 of 1119

Chain of Custody

Work Order No: 650282

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:	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:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:		wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU-DI1-163H	Turn Around	
Project Number:	12919259	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	4.0	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH07A	s	1/24/2020	12:55	4'	1	x	x	x	discrete
BH07B	s	1/24/2020	13:18	8'	1	x	x	x	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

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
		4/24/20 10:19	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 12/11/2020 9:09:15 AM

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.24.2020 04.19.00 PM

Work Order #: 650282

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)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 01.24.2020

Checklist reviewed by: Jessica Kramer Date: 01.28.2020

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 5096

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	5096	C-141

OCD Reviewer	Condition
ceads	Groundwater is not encountered during delineation and/or excavation activities.
ceads	Each 5-point composite sample will represent an area of no greater than 500 square feet for floor and sidewall samples.