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	NAB1902341675
District RP	2 2RP-5194
Facility ID	
Application ID	pAB1902341340

B3NO7-190830-C-1410

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1902341675
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.362739° Longitude -103.836526°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit DI #2	Site Type Production Drill Island
Date Release Discovered 1/4/2019	API# *(if applicable)* 30-015-43368 JRU DI2 #193H

Unit Letter	Section	Township	Range	County
K	25	22S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 29.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe)	Volume/Weight Released (provide units) 1.19 bbls gel, 1.19 bbls diesel, 0.66 bbls FR	Volume/Weight Recovered (provide units) 1.17 bbls gel, 1.17 bbls diesel, 0.65 bbls FR

Cause of Release

During frac activities, blender malfunctioned. During replacement of the blender, a mixture of fluids were released to lined containment and some of the fluids overflowed containment onto the well pad surface. Free standing fluids were recovered from the containment, the blender was replaced, and remediation will proceed as soon as well work is completed at the drill island.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1902341675
District RP	2 2RP-5194
Facility ID	
Application ID	pAB1902341340

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, and Jim Griswold (NMOCD), Shelly Tucker and Jim Amos (BLM) on 1/5/2019 by email

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 Coordinator

Signature: Date: 1-18-19

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

OCD Only

Received by: Date: 1/23/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5194
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5194
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __08/30/2019_____

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-5194
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 08/30/2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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	NAB1902539450
District RP	2 2RP-5203
Facility ID	
Application ID	pAB1902539179

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1902539450
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.362774° Longitude -103.836231°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit DI #2	Site Type Production Drill Island
Date Release Discovered 1/15/2019	API# *(if applicable)* 30-015-43370 (JRU DI2 #192H)

Unit Letter	Section	Township	Range	County
K	25	22S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 4.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

While moving trucks to install containment beneath the trucks, contractor reported a release of fluid. Contractor failed to dry/fan out their trucks prior to moving and spilled fluids onto the well pad. Vacuum trailer immediately recovered free standing fluid. An environmental contractor will be retained to assist with remediation as soon as frac and flowback activities are completed at the drill island.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1902539450
District RP	2 2RP-5203
Facility ID	
Application ID	pAB1920539179

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 Coordinator

Signature: Date: 1-23-19

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

OCD Only

Received by: Date: 1/25/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5203
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5203
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __08/30/2019_____

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-5203
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 08/30/2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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

August 30, 2019

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
James Ranch Unit DI #2
Remediation Permit Numbers 2RP-5194 and 2RP-5203
Eddy County, New Mexico

Dear Mr. Bratcher

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing site assessment, soil sampling, and excavation activities at the James Ranch Unit Drilling Island (DI) #2 (Site) in Unit K, Section 25, Township 22 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to confirm the presence or absence of soil impacts following two separate releases of produced water and/or a mixture of fluids at the Site that occurred during frac operations. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Closure Report and requesting no further action for Remediation Permit (RP) Numbers 2RP-5194 and 2RP-5203.

RELEASE BACKGROUND

On January 4, 2019, a blender malfunctioned and was replaced. During replacement of the blender, a mixture of fluids, consisting of 33.04 barrels (bbls) of primarily produced water, was released into a lined containment and onto the caliche well pad. The blender was replaced, and a vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 32.49 bbls of fluid were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on January 18, 2019, and was assigned RP Number 2RP-5194 (Attachment 1).

On January 15, 2019, a second release occurred at the Site while moving trucks to install containment. A total of 5 bbls of produced water were released onto the caliche well pad. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 4.5 bbls of produced water were recovered. XTO reported the release to the NMOCD on a Form C-141 on January 23, 2019, and was assigned RP Number 2RP-5203 (Attachment 1).

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is New Mexico Office of State Engineers (NM OSE) well C 02418, located approximately 1.96 miles east of the Site. The water well has a depth to groundwater of approximately 413 feet bgs and a total depth of 617 feet bgs. Ground surface elevation at the water well location is 3,368 feet above mean sea level (AMSL), which is approximately 23 feet higher in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 4,857 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

On March 20, 2019, LTE personnel were at the Site to evaluate the release extents based on information provided on the Form C-141 and visual observations. LTE personnel collected eight preliminary soil samples (SS01 through SS08) within the release extents from a depth of approximately 0.5 feet bgs to assess for soil impacts. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach© chloride QuanTab© test strips, respectively. The release extents and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Based on laboratory analytical results for preliminary soil samples SS02 and SS06 through SS08, additional assessment activities were scheduled. On July 22 and July 23, 2019, LTE personnel returned to the Site to oversee soil assessment activities to further delineate impacted soil. Potholes were advanced via a track hoe and hydrovacuum at seven locations within and around the release extents. Potholes PH01 through PH03 and PH07 were advanced to a depth of 6 feet bgs, pothole PH04 was advanced to a depth of 4 feet bgs, pothole PH05 was advanced to a depth of 5 feet bgs, and pothole PH06 was advanced to a depth of 14 feet bgs. Two delineation soil samples were collected from potholes PH01 through PH05 and PH07 and three delineation soil samples were collected from pothole PH06 at depths ranging from 1 foot to 14 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Midland, Texas. All potholes were backfilled with the soil removed. The potholes and delineation soil sample locations are depicted on Figure 3.

On August 6 and August 14, 2019, LTE personnel returned to the Site to oversee excavation of soil as indicated by laboratory analytical results from preliminary soil samples SS02 and SS06 through SS08. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW09 were collected from the sidewalls of the excavation at depths ranging from ground surface to 4 feet bgs. Composite soil samples FS01 through FS45 were collected from the floor of the excavation at a depth of 4 feet bgs. The excavation soil samples were submitted for laboratory analysis of BTEX, TPH, and chloride. The excavation extent and soil sample locations are depicted on Figure 4. Photographic documentation was conducted during the final excavation and confirmation soil sampling activities. Photographs are included in Attachment 3.

The excavation extent measured approximately 12,000 square feet in area. A total of approximately 1,780 cubic yards of impacted soil were removed from the excavation. The

impacted soil will be transported and properly disposed of at the Lea Land landfill facility located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated that GRO and DRO, TPH, and/or chloride concentrations exceeded the Closure Criteria in preliminary soil samples SS02 and SS06 through SS08 collected at 0.5 feet bgs. Laboratory analytical results indicated that benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in delineation soil samples PH01 through PH07 and PH01A through PH07A. Impacted soil was excavated, and laboratory analytical results for confirmation soil sample SW02 collected from the sidewall of the excavation exceeded the Closure Criteria. Further excavation of impacted soil was required, and laboratory analytical results for confirmation soil samples FS01 through FS45, SW01, SW03 through SW09 collected from the floor and sidewalls of the excavation indicated that benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are presented on Figure 2, Figure 3, and Figure 4, and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Soil with GRO and DRO, chloride, and/or TPH impacts was identified in the release areas as indicated by laboratory analytical results for the preliminary soil samples SS02 and SS06 through SS08 and field screening activities. A total of approximately 1,780 cubic yards of impacted soil were excavated from the Site. Laboratory analytical results for the delineation soil samples outside the excavated area and excavation confirmation soil samples indicated that benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further excavation was warranted.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for release numbers 2RP-5194 and 2RP-5203. Upon approval of this closure request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated Form C-141 for each release is included as Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Carol Ann Whaley
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Jim Amos, United States Bureau of Land Management
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5194 and 2RP-5203)
Attachment 2	Lithologic / Soil Sample Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

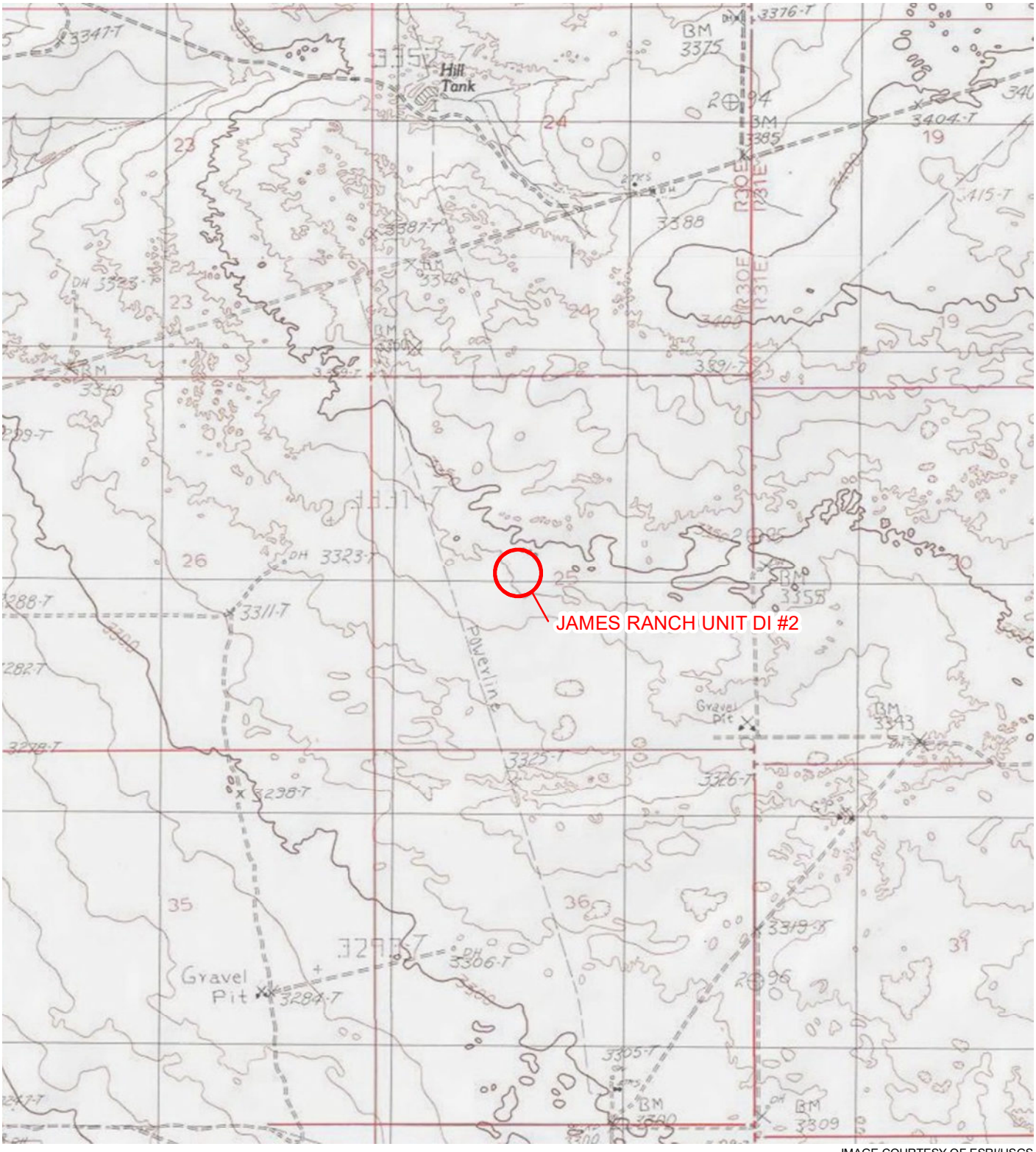


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

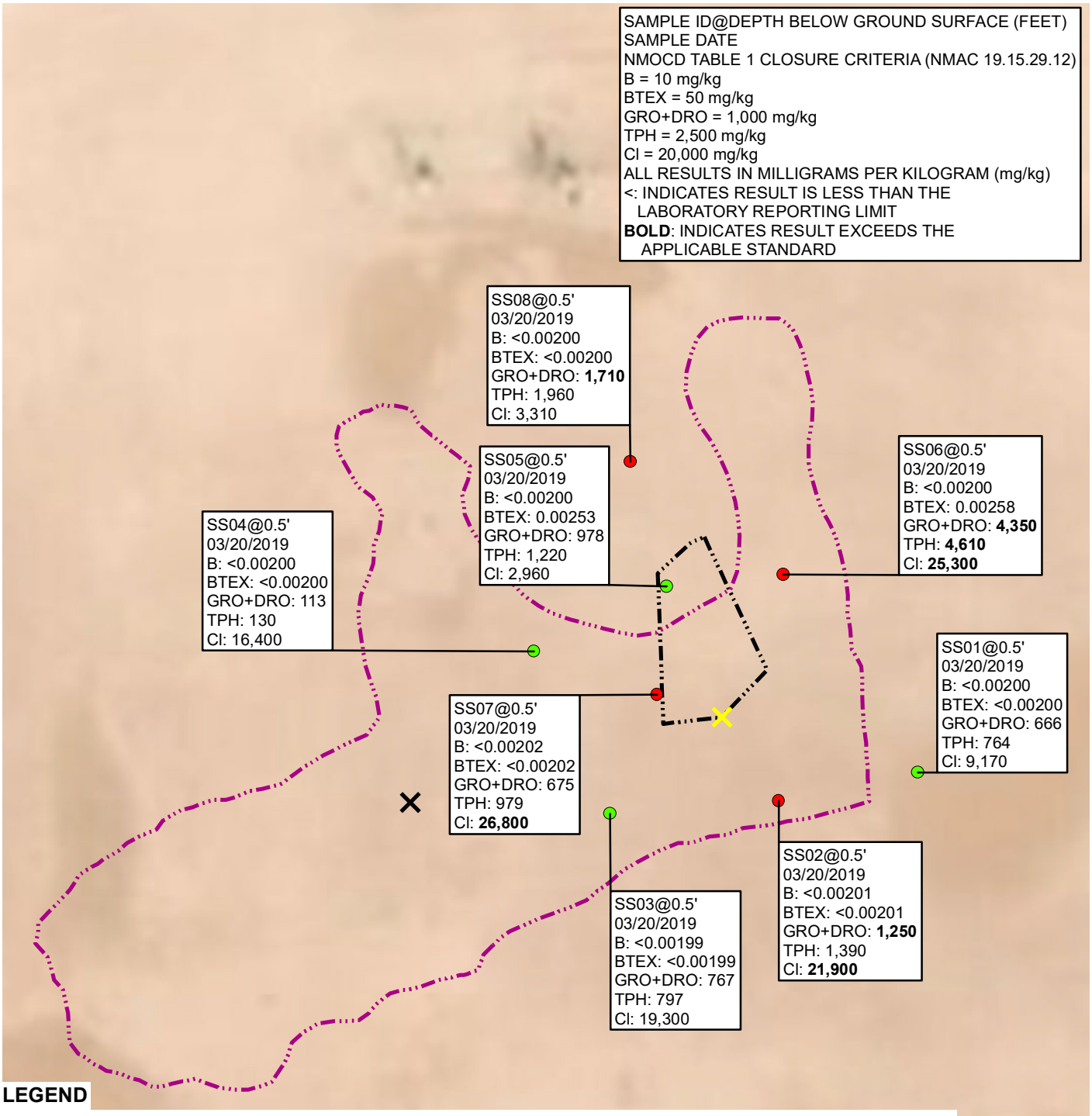
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBERS 2RP-5194 AND 2RP-5203

FIGURE 1
SITE LOCATION MAP
JAMES RANCH UNIT DI #2
UNIT K SEC 25 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919009_JAMES RANCH UNIT DI #2\012919009_FIG01_SL_2019_5194.mxd



LEGEND

- RELEASE LOCATION (2RP-5194)
- RELEASE LOCATION (2RP-5203)
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE STANDARDS
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS
- RELEASE EXTENT (2RP-5194)
- RELEASE EXTENT (2RP-5203)

IMAGE COURTESY OF ESRI

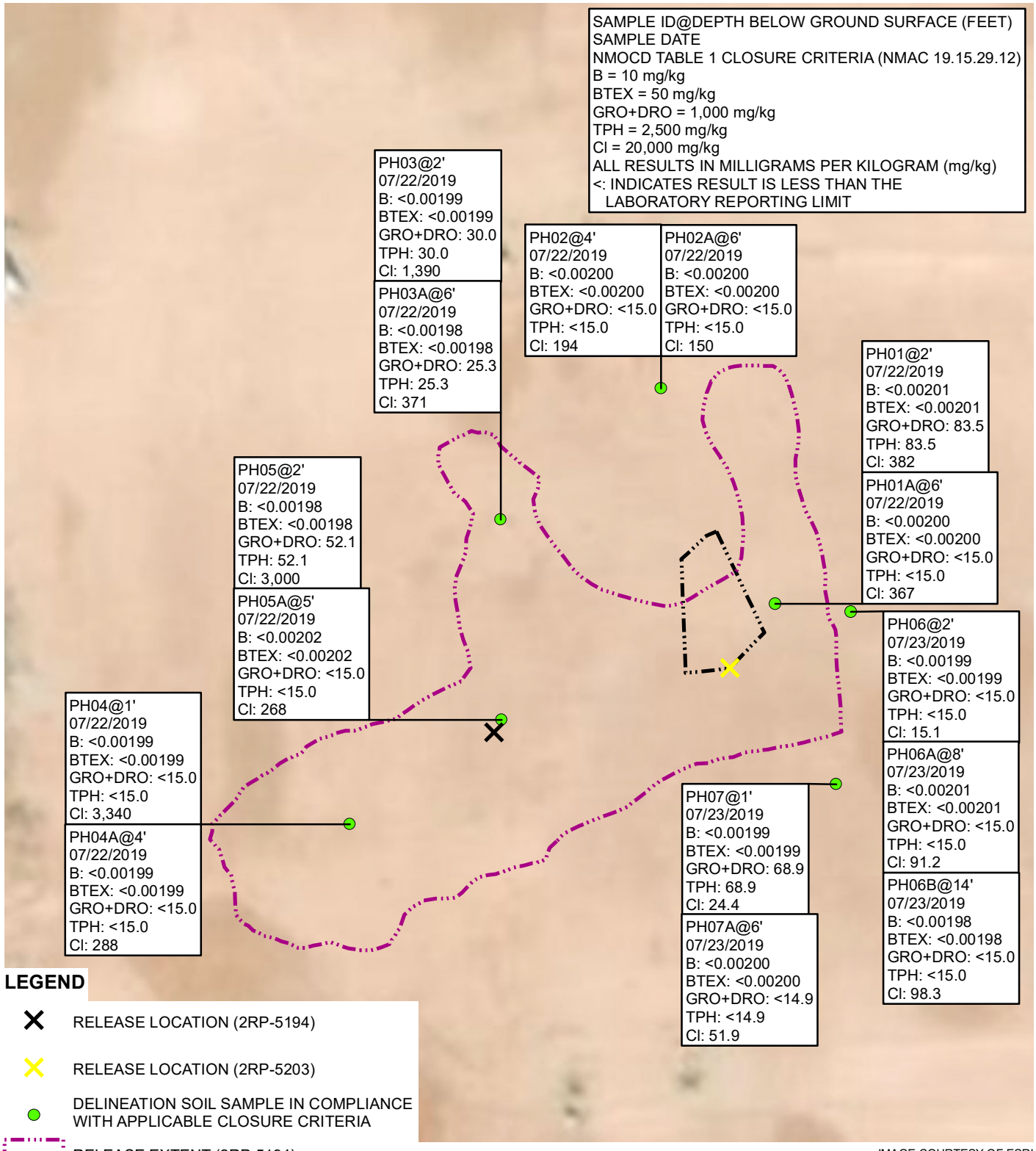
0 40 80
Feet

N

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBERS 2RP-5194 AND 2RP-5203

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT DI #2
UNIT K SEC 25 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

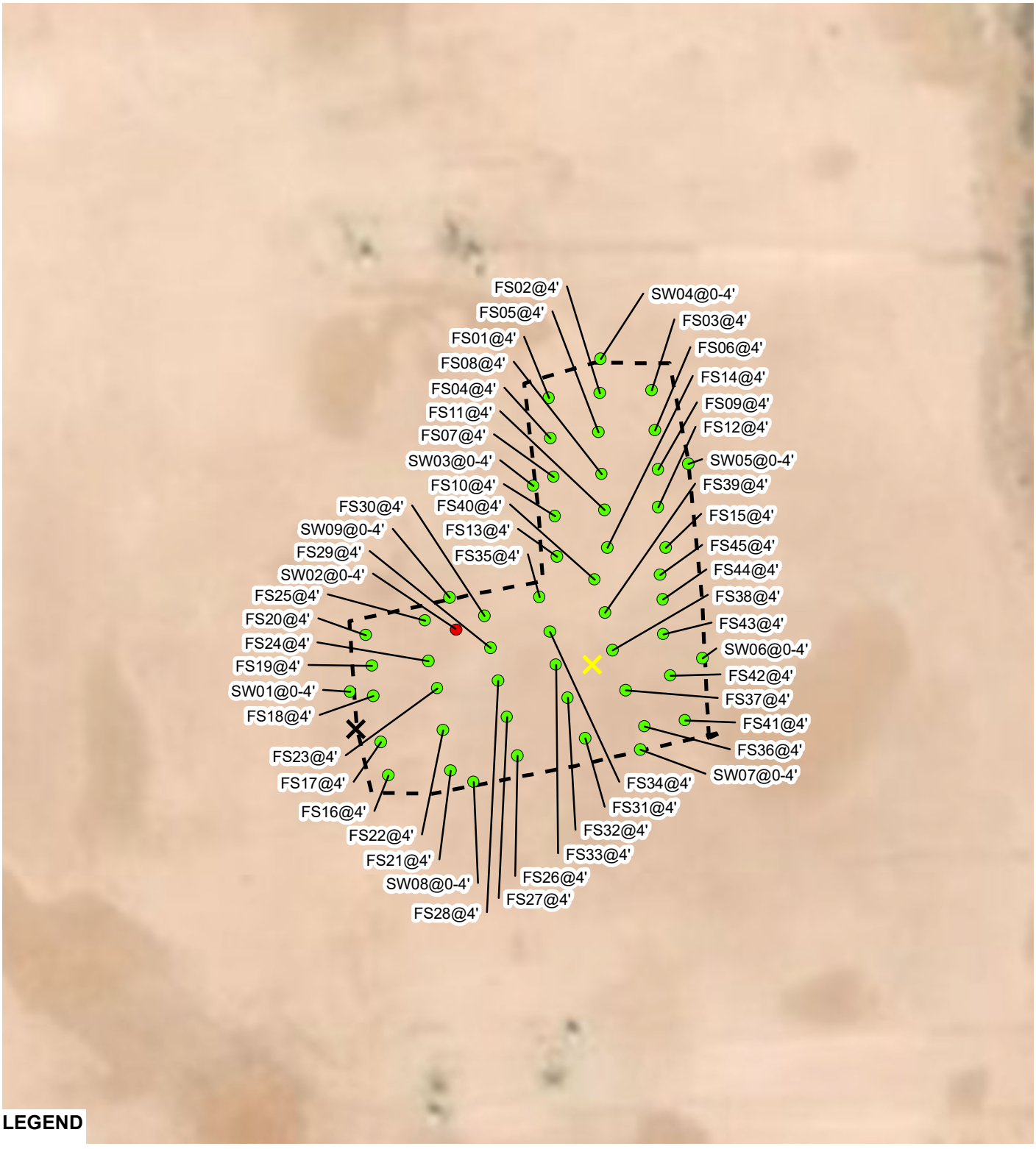
P:\XTO Energy\GIS\MXD\012919009_JAMES RANCH UNIT DI #2\012919009_FIG02_PRELIMINARY_5194.mxd



B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
GRO: GASOLINE RANGE ORGANICS
DRO: DIESEL RANGE ORGANICS
TPH: TOTAL PETROLEUM HYDROCARBONS
Cl: CHLORIDE
NMAC: NEW MEXICO ADMINISTRATIVE CODE
NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBERS 2RP-5194 AND 2RP-5203

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT DI #2
UNIT K SEC 25 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919009_JAMES RANCH UNIT DI #2\012919009_FIG03_DELINEATION_5194.mxd



LEGEND

- RELEASE LOCATION (2RP-5194)
- RELEASE LOCATION (2RP-5203)
- EXCAVATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- EXCAVATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBER 2RP-5194

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
JAMES RANCH UNIT DI #2
UNIT K SEC 25 T22S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919009_JAMES RANCH UNIT DI #2\012919009_FIG04_EXCAVATION_5194.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT DI #2
REMEDIATION PERMIT NUMBERS 2RP-5194 and 2RP-5203
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS01	0.5	03/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	666	98.4	666	764	9,170
SS02	0.5	03/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	1,250	141	**1,250**	1,390	**21,900**
SS03	0.5	03/20/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	767	29.7	767	797	19,300
SS04	0.5	03/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	113	17.3	113	130	16,400
SS05	0.5	03/20/2019	<0.00200	0.00253	<0.00200	<0.00200	0.00253	50.1	928	237	978	1,220	2,960
SS06	0.5	03/20/2019	<0.00200	0.00258	<0.00200	<0.00200	0.00258	82.8	4,270	260	**4,350**	**4,610**	**25,300**
SS07	0.5	03/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	675	304	675	979	**26,800**
SS08	0.5	03/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	1,710	254	**1,710**	1,960	3,310
PH01	2	07/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	83.5	<15.0	83.5	83.5	382
PH01A	6	07/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	367
PH02	4	07/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	194
PH02A	6	07/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	150
PH03	2	07/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	30.0	<15.0	30.0	30.0	1,390
PH03A	6	07/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	25.3	<15.0	25.3	25.3	371
PH04	1	07/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	3,340
PH04A	4	07/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	288
PH05	2	07/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	52.1	<15.0	52.1	52.1	3,000
PH05A	5	07/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	268
PH06	2	07/23/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	15.1
PH06A	8	07/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	91.2
PH06B	14	07/23/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	98.3
PH07	1	07/23/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	68.9	<15.0	68.9	68.9	24.4
PH07A	6	07/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	51.9
FS01	4	07/29/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	282

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT DI #2
REMEDIATION PERMIT NUMBERS 2RP-5194 and 2RP-5203
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS02	4	07/29/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	63.9	<15.0	63.9	63.9	403
FS03	4	07/29/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,600
FS04	4	07/29/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	262
FS05	4	07/29/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	289
FS06	4	07/29/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	385
FS07	4	07/29/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	52.4	<15.0	52.4	52.4	150
FS08	4	07/29/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	226
FS09	4	07/29/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	163
FS10	4	07/29/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	41.8	<14.9	41.8	41.8	28.5
FS11	4	07/29/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	72.0
FS12	4	07/29/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	40.0	<15.0	40.0	40.0	285
FS13	4	08/06/2019	<0.00198	<0.00198	0.00317	0.00792	0.0111	<15.0	38.9	<15.0	38.9	38.9	181
FS14	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	201
FS15	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	357
FS16	4	08/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	6,550
FS17	4	08/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	1,630
FS18	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	4,520
FS19	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	2,770
FS20	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	2,090
FS21	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	5,980
FS22	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	4,680
FS23	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,620
FS24	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	3,980
FS25	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	893

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT DI #2
REMEDIATION PERMIT NUMBERS 2RP-5194 and 2RP-5203
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS26	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	46.8	<14.9	46.8	46.8	2,570
FS27	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	19.2	<15.0	19.2	19.2	2,340
FS28	4	08/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	871
FS29	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,230
FS30	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	742
FS31	4	08/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	206
FS32	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	77.5
FS33	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	232
FS34	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	161
FS35	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	229
FS36	4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	23.0	<15.0	23.0	23.0	124
FS37	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	164
FS38	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	145
FS39	4	08/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	176
FS40	4	08/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	201
FS41	4	08/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	3,430
FS42	4	08/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	214
FS43	4	08/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	261
FS44	4	08/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	334
FS45	4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	318
SW01	0 - 4	08/06/2019	<0.00199	<0.00199	0.0225	0.0236	0.0461	<15.0	198	<15.0	198	198	2,320
SW02	0 - 4	08/06/2019	<0.00200	<0.00200	0.00522	<0.00200	0.00522	15.3	1,940	235	**1,960**	2,190	10,100
SW03	0 - 4	08/06/2019	<0.00200	<0.00200	0.0473	0.0488	0.0961	<15.0	16.8	<15.0	16.8	16.8	566
SW04	0 - 4	08/06/2019	<0.00200	<0.00200	0.00452	<0.00200	0.00452	<15.0	<15.0	<15.0	<15.0	<15.0	533

TABLE 1
SOIL ANALYTICAL RESULTS

JAMES RANCH UNIT DI #2
REMEDIATION PERMIT NUMBERS 2RP-5194 and 2RP-5203
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SW05	0 - 4	08/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	86.3	18.5	86.3	105	894
SW06	0 - 4	08/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	22.6	<15.0	22.6	22.6	199
SW07	0 - 4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	222	46.8	222	269	2,890
SW08	0 - 4	08/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	396	71.3	396	467	3,920
SW09	0 - 4	08/14/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<25.0	29.7	<25.0	29.7	29.7	1,440
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

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	NAB1902341675
District RP	2 2RP-5194
Facility ID	
Application ID	pAB1902341340

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1902341675
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.362739° Longitude -103.836526°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit DI #2	Site Type Production Drill Island
Date Release Discovered 1/4/2019	API# *(if applicable)* 30-015-43368 JRU DI2 #193H

Unit Letter	Section	Township	Range	County
K	25	22S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 29.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe)	Volume/Weight Released (provide units) 1.19 bbls gel, 1.19 bbls diesel, 0.66 bbls FR	Volume/Weight Recovered (provide units) 1.17 bbls gel, 1.17 bbls diesel, 0.65 bbls FR

Cause of Release

During frac activities, blender malfunctioned. During replacement of the blender, a mixture of fluids were released to lined containment and some of the fluids overflowed containment onto the well pad surface. Free standing fluids were recovered from the containment, the blender was replaced, and remediation will proceed as soon as well work is completed at the drill island.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1902341675
District RP	2 2RP-5194
Facility ID	
Application ID	pAB1902341340

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, and Jim Griswold (NMOCD), Shelly Tucker and Jim Amos (BLM) on 1/5/2019 by email

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 Coordinator

Signature: Date: 1-18-19

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

OCD Only

Received by: Date: 1/23/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5194
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5194
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __08/30/2019_____

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-5194
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 08/30/2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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	NAB1902539450
District RP	2 2RP-5203
Facility ID	
Application ID	pAB1902539179

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1902539450
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.362774° Longitude -103.836231°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name James Ranch Unit DI #2	Site Type Production Drill Island
Date Release Discovered 1/15/2019	API# *(if applicable)* 30-015-43370 (JRU DI2 #192H)

Unit Letter	Section	Township	Range	County
K	25	22S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 4.5
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

While moving trucks to install containment beneath the trucks, contractor reported a release of fluid. Contractor failed to dry/fan out their trucks prior to moving and spilled fluids onto the well pad. Vacuum trailer immediately recovered free standing fluid. An environmental contractor will be retained to assist with remediation as soon as frac and flowback activities are completed at the drill island.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1902539450
District RP	2 2RP-5203
Facility ID	
Application ID	pAB1920539179

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 Coordinator

Signature: Date: 1-23-19

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

OCD Only

Received by: Date: 1/25/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5203
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5203
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __08/30/2019_____

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-5203
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature:  Date: 08/30/2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2: LITHOLOGIC SOIL SAMPLE LOGS

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

Identifier:	Date:
PH01	07/22/2019
Project Name:	**RP Number:**
JRU D1 #2 193H	2RP-5194
Logged By: Fatima Smith	**Method:**
Hole Diameter:	**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	380	1019	N		0–1		S	SP-SM, poorly graded, caliche/soil mixture, low plasticity, tan
Dry	280	>15K	N	PH01	2		S	↓
Dry	<173	183.7	N		3–4		S	reddish earthy brwn, no odor, low plasticity, poorly graded, SP-SM
Dry	<173	13.1	N	PH01A	5–6		S	↓ deepest sample @ 6'
					7–12			

Fatima

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

Identifier:	Date:
PH02	07/22/2019
Project Name:	**RP Number:**
JRU D1 #2 193H	2RP-5194
Logged By: Fatima Smith	**Method:**
Lat/Long:	**Field Screening:**
Hole Diameter:	**Total Depth:** 6'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<173	1.8	N		0–1		S	reddish earthy brwn, SP-SM, no odor, low plasticity, poorly graded, trace caliche chunks
Dry	<173	13.0	N		2–3		S	
Dry	196	17.4	N	PH02	4		S	
Dry	196	22.5	N		5		S	
Dry	162	14.6	N	PH02A	6		S	deepest sample@6'

Fatima Smith

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

Identifier:	Date:
PH03	07/22/2019
Project Name:	**RP Number:**
JRU D1 #2 193H	2RP-5194
Logged By: Fatima Smith	**Method:**
Lat/Long:	**Field Screening:**
Hole Diameter:	**Total Depth:** 6'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	1164	2.7	N		0–1		S	SP-SM, poorly graded, tan, low plasticity – no plasticity, caliche/soil mixture
Dry	1349	1.8	N	PH03	2		S	SP-SM, reddish earthy brown, poorly graded, no odor, low plasticity
Dry	330	3.6	N		4		S	
Dry	280	5.1	N	PH03A	6		S	↓ deepest sample @ 6'
					7			
					8			
					9			
					10			
					11			
					12			

Fat M

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

Identifier:	Date:
PH04	07/22/2019
Project Name:	**RP Number:**
JRUDI #2 193H	2RP-5194
Logged By: Fatima Smith	**Method:**
Hole Diameter:	**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	6445	7.3	N	PH04	0–1		S	sm, tan, poorly graded, caliche chunks, no plasticit no odor
Dry	436	7.6	N		2–3		S	SP-SM, reddish earthy brwn, low plasticity, no odor, poorly graded
Dry	380	4.2	N	PH04A	4		S	↓ deepest sample @ 4

Fatima

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

Identifier:	Date:
PH05	07/22/2019
Project Name:	**RP Number:**
JRU DI #2 193H	2RP-5194

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Fatima Smith	Method:
Lat/Long:	Field Screening:
Hole Diameter:	Total Depth: 5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	1792	33.1	N		0–1		S	sp-caliche chunks throughout, tan, poorly graded, no plasticity, no odor
Dry	2604	83.7	N	PH05	2–3		S	sp-SM, reddish earthy brown, low plasticity, no odor, topsoil, trace roots
Dry	621	2.4	N		4		S	
Dry	196	2.1	N	PH05A	5		S	deepest sample @ 5'

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

Fatima

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

Identifier:	Date:
PH06	07/23/2019
Project Name:	**RP Number:**
JRUDI#2 193H	2RP-5194
Logged By: Fatima Smith	**Method:**
Lat/Long:	**Field Screening:**
Hole Diameter:	**Total Depth:** 16'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<173	213.9	N		0–1		S	reddish brwn, SP, no odor, low plasticity, poorly graded
Dry		355.2	N	PH06	2–3			
Dry		172.2	N		4–5			tan, caliche, poorly graded, no plasticity, no odor, GM
Dry		96.6	N		6–7			reddish brwn, no odor, roots, poorly graded, low plasticity, SC
Dry		131.6	N	PH06A	8–9			
Dry		61.2	N		10–11			
Dry		63	N		12			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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Identifier:	Date:
PH06	07/23/2019
Project Name:	**RP Number:**
JRODI #219H	2RP-5194
Logged By: Fatima Smith	**Method:**
Hole Diameter:	**Total Depth:** 16'
Lat/Long:	**Field Screening:**

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<173	90.8	N	PH06B	1	14'	S	reddish brwn, no odor, low plasticity, SC, poorly graded
Dry	<173	61.2	N		2	16'	S	deepest sample@16'

0 3 4 5 6 7 8 9 10 11 12

Fatima

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

Identifier:	Date:
PH07	07/23/2019
Project Name:	**RP Number:**
JRU DI #2 193H	2RP-5194

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: Fatima Smith	Method:
Lat/Long:	Field Screening:
Hole Diameter:	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<173	~~61.2~~ F.S 272.5	N	PH07	0–1		S	reddish brwn, topsoil, strong odor, low plasticity, poorly graded, SC
Dry	<173	~~272.5~~ F.S 116.5	N		1–2		S	SC, no odor, reddish brwn, low plasticity, poorly gracled
Dry	<173	136.5	N		2–3			
					3–4		S	
					4–5			
					5–6		S	↓ deepest sample @ 6'
Dry	<173	5.0	N	PH07A	6–7			
					7–8			
					8–9			
					9–10			
					10–11			
					11–12			

Fat

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

Project: 012919009	XTO Energy, Inc. James Ranch Unit DI #2	LTE Advancing Opportunity
August 6, 2019	Photographic Log	

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

Project: 012919009	XTO Energy, Inc. James Ranch Unit DI #2	LTE Advancing Opportunity
August 6, 2019	Photographic Log	

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 618606

for

LT Environmental, Inc.

Project Manager: Adrian Baker

JRU DI 2 #93H

02-APR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

02-APR-19

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

Reference: XENCO Report No(s): **618606**
JRU DI 2 #93H
Project Address: ---

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 618606. 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. 618606 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kalei Stout
Midland Laboratory Director

Sample Cross Reference 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	03-20-19 16:20	.5 ft	618606-001
SS02	S	03-20-19 16:30	.5 ft	618606-002
SS03	S	03-20-19 16:45	.5 ft	618606-003
SS04	S	03-20-19 16:55	.5 ft	618606-004
SS05	S	03-20-19 17:05	.5 ft	618606-005
SS06	S	03-20-19 17:15	.5 ft	618606-006
SS07	S	03-20-19 17:25	.5 ft	618606-007
SS08	S	03-20-19 17:40	.5 ft	618606-008

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3083844 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.Samples affected are: 7674535-1-BKS,7674535-1-BSD,618604-001 S,618604-001 SD,618606-005,618606-006,618606-007,618606-004,618606-003,618606-008,618606-001,618606-002.

Certificate of Analysis Summary 618606

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 2 #93H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Mar-22-19 11:55 am
Report Date: 02-APR-19
Project Manager: Kalei Stout

Analysis Requested													
	Lab Id:	618606-001		618606-002		618606-003		618606-004		618606-005		618606-006	
	Field Id:	SS01		SS02		SS03		SS04		SS05		SS06	
	Depth:	.5- ft		.5- ft		.5- ft		.5- ft		.5- ft		.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-20-19 16:20		Mar-20-19 16:30		Mar-20-19 16:45		Mar-20-19 16:55		Mar-20-19 17:05		Mar-20-19 17:15	
BTEX by EPA 8021B	***Extracted:***	Mar-28-19 09:00		Mar-28-19 09:00		Mar-28-19 09:00		Mar-28-19 09:00		Mar-28-19 09:00		Mar-28-19 09:00	
	Analyzed:	Mar-28-19 13:18		Mar-28-19 13:38		Mar-28-19 14:56		Mar-28-19 15:16		Mar-28-19 15:35		Mar-28-19 15:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	0.00253	0.00200	0.00258	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401	<0.00399	0.00399	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	0.00253	0.00200	0.00258	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-23-19 19:35		Mar-23-19 19:35		Mar-23-19 19:35		Mar-23-19 19:35		Mar-23-19 19:35		Mar-23-19 19:35	
	Analyzed:	Mar-24-19 00:28		Mar-24-19 00:34		Mar-24-19 00:41		Mar-24-19 00:48		Mar-24-19 01:07		Mar-24-19 01:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		9170	100	21900	250	19300	250	16400	100	2960	49.9	25300	250
TPH by SW8015 Mod	***Extracted:***	Mar-22-19 13:00		Mar-22-19 13:00		Mar-22-19 13:00		Mar-22-19 13:00		Mar-22-19 13:00		Mar-22-19 13:00	
	Analyzed:	Mar-23-19 01:30		Mar-23-19 01:49		Mar-23-19 02:09		Mar-23-19 02:29		Mar-23-19 02:49		Mar-23-19 03:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	50.1	15.0	82.8	15.0
Diesel Range Organics (DRO)		666	14.9	1250	15.0	767	15.0	113	15.0	928	15.0	4270	15.0
Motor Oil Range Hydrocarbons (MRO)		98.4	14.9	141	15.0	29.7	15.0	17.3	15.0	237	15.0	260	15.0
Total TPH		764	14.9	1390	15.0	797	15.0	130	15.0	1220	15.0	4610	15.0

Kalei Stout
Midland Laboratory Director

Certificate of Analysis Summary 618606

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI 2 #93H

Project Id: ---
Contact: Adrian Baker
Project Location: ---

Date Received in Lab: Fri Mar-22-19 11:55 am
Report Date: 02-APR-19
Project Manager: Kalei Stout

Analysis Requested									
	Lab Id:	618606-007		618606-008					
	Field Id:	SS07		SS08					
	Depth:	.5- ft		.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Mar-20-19 17:25		Mar-20-19 17:40					
BTEX by EPA 8021B	***Extracted:***	Mar-28-19 09:00		Mar-28-19 09:00					
	Analyzed:	Mar-28-19 16:15		Mar-28-19 16:34					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00202	0.00202	<0.00200	0.00200				
Toluene		<0.00202	0.00202	<0.00200	0.00200				
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200				
m,p-Xylenes		<0.00403	0.00403	<0.00400	0.00400				
o-Xylene		<0.00202	0.00202	<0.00200	0.00200				
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200				
Total BTEX		<0.00202	0.00202	<0.00200	0.00200				
Inorganic Anions by EPA 300	***Extracted:***	Mar-23-19 19:35		Mar-23-19 19:35					
	Analyzed:	Mar-24-19 01:21		Mar-24-19 01:28					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		26800	250	3310	49.9				
TPH by SW8015 Mod	***Extracted:***	Mar-22-19 13:00		Mar-22-19 13:00					
	Analyzed:	Mar-23-19 03:28		Mar-23-19 03:48					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0				
Diesel Range Organics (DRO)		675	14.9	1710	15.0				
Motor Oil Range Hydrocarbons (MRO)		304	14.9	254	15.0				
Total TPH		979	14.9	1960	15.0				

Kalei Stout
Midland Laboratory Director

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-001	Date Collected:	03.20.19 16.20	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9170**	100	mg/kg	03.24.19 00.28		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.23.19 01.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**666**	14.9	mg/kg	03.23.19 01.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**98.4**	14.9	mg/kg	03.23.19 01.30		1
Total TPH	PHC635	**764**	14.9	mg/kg	03.23.19 01.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.23.19 01.30	
o-Terphenyl	84-15-1	127	%	70-135	03.23.19 01.30	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-001	Date Collected:	03.20.19 16.20	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.28.19 13.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 13.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.28.19 13.18	
4-Bromofluorobenzene	460-00-4	143	%	70-130	03.28.19 13.18	**

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-002	Date Collected:	03.20.19 16.30	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21900**	250	mg/kg	03.24.19 00.34		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.23.19 01.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1250**	15.0	mg/kg	03.23.19 01.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**141**	15.0	mg/kg	03.23.19 01.49		1
Total TPH	PHC635	**1390**	15.0	mg/kg	03.23.19 01.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.23.19 01.49	
o-Terphenyl	84-15-1	121	%	70-135	03.23.19 01.49	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-002	Date Collected:	03.20.19 16.30	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.28.19 13.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.28.19 13.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	143	%	70-130	03.28.19 13.38	**
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.28.19 13.38	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-003	Date Collected:	03.20.19 16.45	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19300**	250	mg/kg	03.24.19 00.41		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.23.19 02.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**767**	15.0	mg/kg	03.23.19 02.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**29.7**	15.0	mg/kg	03.23.19 02.09		1
Total TPH	PHC635	**797**	15.0	mg/kg	03.23.19 02.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.23.19 02.09	
o-Terphenyl	84-15-1	113	%	70-135	03.23.19 02.09	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-003	Date Collected:	03.20.19 16.45	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.28.19 14.56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.28.19 14.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.28.19 14.56	
4-Bromofluorobenzene	460-00-4	137	%	70-130	03.28.19 14.56	**

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-004	Date Collected:	03.20.19 16.55	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16400**	100	mg/kg	03.24.19 00.48		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.23.19 02.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**113**	15.0	mg/kg	03.23.19 02.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**17.3**	15.0	mg/kg	03.23.19 02.29		1
Total TPH	PHC635	**130**	15.0	mg/kg	03.23.19 02.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.23.19 02.29	
o-Terphenyl	84-15-1	101	%	70-135	03.23.19 02.29	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-004	Date Collected:	03.20.19 16.55	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.28.19 15.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	03.28.19 15.16	
4-Bromofluorobenzene	460-00-4	146	%	70-130	03.28.19 15.16	**

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-005	Date Collected:	03.20.19 17.05	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2960**	49.9	mg/kg	03.24.19 01.07		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**50.1**	15.0	mg/kg	03.23.19 02.49		1
Diesel Range Organics (DRO)	C10C28DRO	**928**	15.0	mg/kg	03.23.19 02.49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**237**	15.0	mg/kg	03.23.19 02.49		1
Total TPH	PHC635	**1220**	15.0	mg/kg	03.23.19 02.49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.23.19 02.49	
o-Terphenyl	84-15-1	115	%	70-135	03.23.19 02.49	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-005	Date Collected:	03.20.19 17.05	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 15.35	U	1
Toluene	108-88-3	**0.00253**	0.00200	mg/kg	03.28.19 15.35		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 15.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.28.19 15.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 15.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 15.35	U	1
Total BTEX		**0.00253**	0.00200	mg/kg	03.28.19 15.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	144	%	70-130	03.28.19 15.35	**
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.28.19 15.35	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-006	Date Collected:	03.20.19 17.15	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25300**	250	mg/kg	03.24.19 01.15		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**82.8**	15.0	mg/kg	03.23.19 03.08		1
Diesel Range Organics (DRO)	C10C28DRO	**4270**	15.0	mg/kg	03.23.19 03.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**260**	15.0	mg/kg	03.23.19 03.08		1
Total TPH	PHC635	**4610**	15.0	mg/kg	03.23.19 03.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	03.23.19 03.08	
o-Terphenyl	84-15-1	123	%	70-135	03.23.19 03.08	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-006	Date Collected:	03.20.19 17.15	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 15.56	U	1
Toluene	108-88-3	**0.00258**	0.00200	mg/kg	03.28.19 15.56		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 15.56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.28.19 15.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 15.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 15.56	U	1
Total BTEX		**0.00258**	0.00200	mg/kg	03.28.19 15.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	139	%	70-130	03.28.19 15.56	**
1,4-Difluorobenzene	540-36-3	97	%	70-130	03.28.19 15.56	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-007	Date Collected:	03.20.19 17.25	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26800**	250	mg/kg	03.24.19 01.21		50

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.23.19 03.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**675**	14.9	mg/kg	03.23.19 03.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**304**	14.9	mg/kg	03.23.19 03.28		1
Total TPH	PHC635	**979**	14.9	mg/kg	03.23.19 03.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.23.19 03.28	
o-Terphenyl	84-15-1	105	%	70-135	03.23.19 03.28	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-007	Date Collected:	03.20.19 17.25	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.28.19 16.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.28.19 16.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	03.28.19 16.15	
4-Bromofluorobenzene	460-00-4	145	%	70-130	03.28.19 16.15	**

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-008	Date Collected:	03.20.19 17.40	Sample Depth:	.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.23.19 19.35	Basis:	Wet Weight
Seq Number:	3083135				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3310**	49.9	mg/kg	03.24.19 01.28		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.22.19 13.00	Basis:	Wet Weight
Seq Number:	3083115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.23.19 03.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1710**	15.0	mg/kg	03.23.19 03.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**254**	15.0	mg/kg	03.23.19 03.48		1
Total TPH	PHC635	**1960**	15.0	mg/kg	03.23.19 03.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.23.19 03.48	
o-Terphenyl	84-15-1	130	%	70-135	03.23.19 03.48	

Certificate of Analytical Results 618606

LT Environmental, Inc., Arvada, CO

JRU DI 2 #93H

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	03.22.19 11.55
Lab Sample Id:	618606-008	Date Collected:	03.20.19 17.40	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.28.19 09.00	Basis:	Wet Weight
Seq Number:	3083844				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.28.19 16.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.28.19 16.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.28.19 16.34	
4-Bromofluorobenzene	460-00-4	144	%	70-130	03.28.19 16.34	**

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 618606

LT Environmental, Inc.

JRU DI 2 #93H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3083135 Matrix: Solid Date Prep: 03.23.19
MB Sample Id: 7674206-1-BLK LCS Sample Id: 7674206-1-BKS LCSD Sample Id: 7674206-1-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	273	109	255	102	90-110	7	20	mg/kg	03.23.19 23:54	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3083135 Matrix: Soil Date Prep: 03.23.19
Parent Sample Id: 618582-010 MS Sample Id: 618582-010 S MSD Sample Id: 618582-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	67.4	248	322	103	325	104	90-110	1	20	mg/kg	03.24.19 00:15	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3083135 Matrix: Soil Date Prep: 03.23.19
Parent Sample Id: 618652-002 MS Sample Id: 618652-002 S MSD Sample Id: 618652-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	116	250	386	108	<5.00	0	90-110	200	20	mg/kg	03.24.19 01:48	XF

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3083115 Matrix: Solid Date Prep: 03.22.19
MB Sample Id: 7674181-1-BLK LCS Sample Id: 7674181-1-BKS LCSD Sample Id: 7674181-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1060	106	1030	103	70-135	3	20	mg/kg	03.22.19 19:35	
Diesel Range Organics (DRO)	<8.13	1000	1160	116	1120	112	70-135	4	20	mg/kg	03.22.19 19:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		127		129		70-135	%	03.22.19 19:35
o-Terphenyl	107		118		118		70-135	%	03.22.19 19:35

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

QC Summary 618606

LT Environmental, Inc.

JRU DI 2 #93H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3083115 Matrix: Soil Date Prep: 03.22.19
Parent Sample Id: 617910-001 MS Sample Id: 617910-001 S MSD Sample Id: 617910-001 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	981	98	1000	100	70-135	2	20	mg/kg	03.22.19 20:36	
Diesel Range Organics (DRO)	<8.10	997	1000	100	1020	102	70-135	2	20	mg/kg	03.22.19 20:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		128		70-135	%	03.22.19 20:36
o-Terphenyl	116		118		70-135	%	03.22.19 20:36

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3083844 Matrix: Solid Date Prep: 03.28.19
MB Sample Id: 7674535-1-BLK LCS Sample Id: 7674535-1-BKS LCSD Sample Id: 7674535-1-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	0.110	110	0.116	115	70-130	5	35	mg/kg	03.28.19 08:53	
Toluene	<0.000457	0.100	0.109	109	0.114	113	70-130	4	35	mg/kg	03.28.19 08:53	
Ethylbenzene	<0.000566	0.100	0.117	117	0.123	122	70-130	5	35	mg/kg	03.28.19 08:53	
m,p-Xylenes	<0.00102	0.200	0.227	114	0.239	118	70-130	5	35	mg/kg	03.28.19 08:53	
o-Xylene	<0.000345	0.100	0.116	116	0.123	122	70-130	6	35	mg/kg	03.28.19 08:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		102		103		70-130	%	03.28.19 08:53
4-Bromofluorobenzene	119		136	**	136	**	70-130	%	03.28.19 08:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3083844 Matrix: Soil Date Prep: 03.28.19
Parent Sample Id: 618604-001 MS Sample Id: 618604-001 S MSD Sample Id: 618604-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.105	105	0.0768	77	70-130	31	35	mg/kg	03.28.19 09:31	
Toluene	<0.000456	0.100	0.103	103	0.0686	69	70-130	40	35	mg/kg	03.28.19 09:31	XF
Ethylbenzene	<0.000565	0.100	0.108	108	0.0617	62	70-130	55	35	mg/kg	03.28.19 09:31	XF
m,p-Xylenes	0.00250	0.200	0.207	102	0.117	57	70-130	56	35	mg/kg	03.28.19 09:31	XF
o-Xylene	0.00131	0.100	0.105	104	0.0592	58	70-130	56	35	mg/kg	03.28.19 09:31	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		70-130	%	03.28.19 09:31
4-Bromofluorobenzene	142	**	141	**	70-130	%	03.28.19 09:31

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

Chain of Custody

Work Order No: 1918606

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:	Cgreen@ltenv.com/Abaker@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 OI 2 #193H	Turn Around	
Project Number:		Routine	☑
P.O. Number:	2RP-5194	Rush:	
Sampler's Name:	Garrett Green	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.5/0.2	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID:	IR
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1
		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)
SS01	S	3/20/19	1620	.5'	1	X	X	X
SS02	S		1630		1	X	X	X
SS03	S		1645		1	X	X	X
SS04	S		1655		1	X	X	X
SS05	S		1705		1	X	X	X
SS06	S		1715		1	X	X	X
SS07	S		1725		1	X	X	X
SS08	S		1740		1	X	X	X

Work Order Notes

32.3626
-103.83676

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/20/19 - 1900	2		03/21/2019 10:15
3			3/22/19 1155	4		
5				6		

Revised Date 051418 Rev. 2018.1

Final 1.000

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XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/22/2019 11:55:00 AM

Work Order #: 618606

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: 03/22/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 03/22/2019
Jessica Kramer

Analytical Report 631827

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU #2 193H

1/4/2019

26-JUL-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)

26-JUL-19

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

Reference: XENCO Report No(s): **631827**
JRU #2 193H
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) 631827. 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. 631827 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Kalei Stout
Midland Laboratory Director

Sample Cross Reference 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07-22-19 09:44	2 ft	631827-001
PH01A	S	07-22-19 10:10	6 ft	631827-002
PH02	S	07-22-19 10:30	4 ft	631827-003
PH02A	S	07-22-19 10:49	6 ft	631827-004
PH03	S	07-22-19 11:09	2 ft	631827-005
PH03A	S	07-22-19 11:31	6 ft	631827-006
PH04	S	07-22-19 12:33	1 ft	631827-007
PH04A	S	07-22-19 12:49	4 ft	631827-008
PH05	S	07-22-19 13:09	2 ft	631827-009
PH05A	S	07-22-19 13:29	5 ft	631827-010

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096465 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: 631827-002 S.

Certificate of Analysis Summary 631827

LT Environmental, Inc., Arvada, CO

Project Name: JRU #2 193H

Project Id: 1/4/2019
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Jul-24-19 11:45 am
Report Date: 26-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631827-001		631827-002		631827-003		631827-004		631827-005		631827-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	2- ft		6- ft		4- ft		6- ft		2- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-22-19 09:44		Jul-22-19 10:10		Jul-22-19 10:30		Jul-22-19 10:49		Jul-22-19 11:09		Jul-22-19 11:31	
BTEX by EPA 8021B	***Extracted:***	Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20	
	Analyzed:	Jul-25-19 01:00		Jul-25-19 03:00		Jul-25-19 03:20		Jul-25-19 03:40		Jul-25-19 04:00		Jul-25-19 04:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00401	0.00401	<0.00400	0.00400	<0.00398	0.00398	<0.00397	0.00397
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	Jul-24-19 15:00		Jul-24-19 15:00		Jul-24-19 15:00		Jul-24-19 15:00		Jul-24-19 15:25		Jul-24-19 15:25	
	Analyzed:	Jul-24-19 22:15		Jul-24-19 22:24		Jul-24-19 22:34		Jul-24-19 22:43		Jul-24-19 16:47		Jul-24-19 16:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		382	5.03	367	5.05	194	5.05	150	5.03	1390	5.02	371	4.98
TPH by SW8015 Mod	***Extracted:***	Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00	
	Analyzed:	Jul-24-19 22:58		Jul-25-19 00:11		Jul-25-19 00:35		Jul-25-19 00:59		Jul-25-19 01:23		Jul-25-19 01:47	
	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)		83.5	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	30.0	15.0	25.3	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		83.5	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	30.0	15.0	25.3	15.0
Total GRO-DRO		83.5	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	30.0	15.0	25.3	15.0

Kalei Stout
Midland Laboratory Director

Certificate of Analysis Summary 631827

LT Environmental, Inc., Arvada, CO

Project Name: JRU #2 193H

Project Id: 1/4/2019
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Jul-24-19 11:45 am
Report Date: 26-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	631827-007		631827-008		631827-009		631827-010					
	Field Id:	PH04		PH04A		PH05		PH05A					
	Depth:	1- ft		4- ft		2- ft		5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jul-22-19 12:33		Jul-22-19 12:49		Jul-22-19 13:09		Jul-22-19 13:29					
BTEX by EPA 8021B	***Extracted:***	Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20		Jul-24-19 13:20					
	Analyzed:	Jul-25-19 04:41		Jul-25-19 12:20		Jul-25-19 05:21		Jul-25-19 05:41					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00397	0.00397	<0.00404	0.00404				
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Jul-24-19 15:25		Jul-24-19 15:25		Jul-25-19 16:15		Jul-25-19 16:15					
	Analyzed:	Jul-24-19 16:58		Jul-24-19 17:14		Jul-25-19 22:04		Jul-25-19 21:46					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		3340	25.1	288	5.05	3000	24.9	268	5.02				
TPH by SW8015 Mod	***Extracted:***	Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00		Jul-24-19 17:00					
	Analyzed:	Jul-25-19 02:11		Jul-25-19 02:35		Jul-25-19 02:59		Jul-25-19 03:22					
	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	52.1	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	52.1	15.0	<15.0	15.0				
Total GRO-DRO		<15.0	15.0	<15.0	15.0	52.1	15.0	<15.0	15.0				

Kalei Stout
Midland Laboratory Director

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-001	Date Collected:	07.22.19 09.44	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.00	Basis:	Wet Weight
Seq Number:	3096412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**382**	5.03	mg/kg	07.24.19 22.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.24.19 22.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**83.5**	15.0	mg/kg	07.24.19 22.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.24.19 22.58	U	1
Total TPH	PHC635	**83.5**	15.0	mg/kg	07.24.19 22.58		1
Total GRO-DRO	PHC628	**83.5**	15.0	mg/kg	07.24.19 22.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.24.19 22.58	
o-Terphenyl	84-15-1	77	%	70-135	07.24.19 22.58	

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-001	Date Collected:	07.22.19 09.44	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.25.19 01.00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.25.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	07.25.19 01.00	
4-Bromofluorobenzene	460-00-4	122	%	70-130	07.25.19 01.00	

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-002	Date Collected:	07.22.19 10.10	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.00	Basis:	Wet Weight
Seq Number:	3096412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**367**	5.05	mg/kg	07.24.19 22.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 00.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 00.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 00.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 00.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 00.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.25.19 00.11	
o-Terphenyl	84-15-1	71	%	70-135	07.25.19 00.11	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-002	Date Collected:	07.22.19 10.10	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.25.19 03.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 03.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.25.19 03.00	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.25.19 03.00	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-003	Date Collected:	07.22.19 10.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.00	Basis:	Wet Weight
Seq Number:	3096412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**194**	5.05	mg/kg	07.24.19 22.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 00.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 00.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 00.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 00.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 00.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.25.19 00.35	
o-Terphenyl	84-15-1	70	%	70-135	07.25.19 00.35	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-003	Date Collected:	07.22.19 10.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.25.19 03.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 03.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.25.19 03.20	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.25.19 03.20	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-004	Date Collected:	07.22.19 10.49	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.00	Basis:	Wet Weight
Seq Number:	3096412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**150**	5.03	mg/kg	07.24.19 22.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 00.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 00.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 00.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 00.59	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 00.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.25.19 00.59	
o-Terphenyl	84-15-1	74	%	70-135	07.25.19 00.59	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-004	Date Collected:	07.22.19 10.49	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.25.19 03.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.25.19 03.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	07.25.19 03.40	
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.25.19 03.40	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-005	Date Collected:	07.22.19 11.09	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.25	Basis:	Wet Weight
Seq Number:	3096407				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1390**	5.02	mg/kg	07.24.19 16.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 01.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**30.0**	15.0	mg/kg	07.25.19 01.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 01.23	U	1
Total TPH	PHC635	**30.0**	15.0	mg/kg	07.25.19 01.23		1
Total GRO-DRO	PHC628	**30.0**	15.0	mg/kg	07.25.19 01.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.25.19 01.23	
o-Terphenyl	84-15-1	72	%	70-135	07.25.19 01.23	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-005	Date Collected:	07.22.19 11.09	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 04.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 04.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	07.25.19 04.00	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.25.19 04.00	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-006	Date Collected:	07.22.19 11.31	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.25	Basis:	Wet Weight
Seq Number:	3096407				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**371**	4.98	mg/kg	07.24.19 16.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 01.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**25.3**	15.0	mg/kg	07.25.19 01.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 01.47	U	1
Total TPH	PHC635	**25.3**	15.0	mg/kg	07.25.19 01.47		1
Total GRO-DRO	PHC628	**25.3**	15.0	mg/kg	07.25.19 01.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	07.25.19 01.47	
o-Terphenyl	84-15-1	75	%	70-135	07.25.19 01.47	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-006	Date Collected:	07.22.19 11.31	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 04.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 04.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.25.19 04.20	
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.25.19 04.20	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-007	Date Collected:	07.22.19 12.33	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.25	Basis:	Wet Weight
Seq Number:	3096407				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3340**	25.1	mg/kg	07.24.19 16.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 02.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 02.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 02.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 02.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 02.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.25.19 02.11	
o-Terphenyl	84-15-1	75	%	70-135	07.25.19 02.11	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-007	Date Collected:	07.22.19 12.33	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 04.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 04.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.25.19 04.41	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.25.19 04.41	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-008	Date Collected:	07.22.19 12.49	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.24.19 15.25	Basis:	Wet Weight
Seq Number:	3096407				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**288**	5.05	mg/kg	07.24.19 17.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 02.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 02.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 02.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.25.19 02.35	
o-Terphenyl	84-15-1	71	%	70-135	07.25.19 02.35	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-008	Date Collected:	07.22.19 12.49	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.25.19 12.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.25.19 12.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.25.19 12.20	
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.25.19 12.20	

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LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-009	Date Collected:	07.22.19 13.09	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3000**	24.9	mg/kg	07.25.19 22.04		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.1**	15.0	mg/kg	07.25.19 02.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 02.59	U	1
Total TPH	PHC635	**52.1**	15.0	mg/kg	07.25.19 02.59		1
Total GRO-DRO	PHC628	**52.1**	15.0	mg/kg	07.25.19 02.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.25.19 02.59	
o-Terphenyl	84-15-1	72	%	70-135	07.25.19 02.59	

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-009	Date Collected:	07.22.19 13.09	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.25.19 05.21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.25.19 05.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.25.19 05.21	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.25.19 05.21	

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-010	Date Collected:	07.22.19 13.29	Sample Depth:	5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**268**	5.02	mg/kg	07.25.19 21.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.24.19 17.00	Basis:	Wet Weight
Seq Number:	3096439				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.25.19 03.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.25.19 03.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.25.19 03.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.25.19 03.22	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.25.19 03.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.25.19 03.22	
o-Terphenyl	84-15-1	75	%	70-135	07.25.19 03.22	

Certificate of Analytical Results 631827

LT Environmental, Inc., Arvada, CO

JRU #2 193H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.24.19 11.45
Lab Sample Id:	631827-010	Date Collected:	07.22.19 13.29	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.24.19 13.20	Basis:	Wet Weight
Seq Number:	3096465				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.25.19 05.41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.25.19 05.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.25.19 05.41	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.25.19 05.41	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 631827

LT Environmental, Inc.

JRU #2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096412 Matrix: Solid Date Prep: 07.24.19
MB Sample Id: 7682712-1-BLK LCS Sample Id: 7682712-1-BKS LCSD Sample Id: 7682712-1-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	257	103	258	103	90-110	0	20	mg/kg	07.24.19 18:06	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096407 Matrix: Solid Date Prep: 07.24.19
MB Sample Id: 7682713-1-BLK LCS Sample Id: 7682713-1-BKS LCSD Sample Id: 7682713-1-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	263	105	259	104	90-110	2	20	mg/kg	07.24.19 16:15	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096552 Matrix: Solid Date Prep: 07.25.19
MB Sample Id: 7682868-1-BLK LCS Sample Id: 7682868-1-BKS LCSD Sample Id: 7682868-1-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	253	101	90-110	0	20	mg/kg	07.25.19 21:33	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096412 Matrix: Soil Date Prep: 07.24.19
Parent Sample Id: 631829-003 MS Sample Id: 631829-003 S MSD Sample Id: 631829-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.860	251	274	109	274	109	90-110	0	20	mg/kg	07.24.19 20:49	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096412 Matrix: Soil Date Prep: 07.24.19
Parent Sample Id: 631864-003 MS Sample Id: 631864-003 S MSD Sample Id: 631864-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	31.7	252	312	111	313	112	90-110	0	20	mg/kg	07.24.19 18:34	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 631827

LT Environmental, Inc.

JRU #2 193H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096407 — Matrix: Soil — Date Prep: 07.24.19
Parent Sample Id: 631753-001 — MS Sample Id: 631753-001 S — MSD Sample Id: 631753-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.1	251	272	104	267	102	90-110	2	20	mg/kg	07.24.19 16:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096407 — Matrix: Soil — Date Prep: 07.24.19
Parent Sample Id: 631852-005 — MS Sample Id: 631852-005 S — MSD Sample Id: 631852-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1370	252	1570	79	1570	79	90-110	0	20	mg/kg	07.24.19 17:45	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096552 — Matrix: Soil — Date Prep: 07.25.19
Parent Sample Id: 631827-010 — MS Sample Id: 631827-010 S — MSD Sample Id: 631827-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	268	251	514	98	516	99	90-110	0	20	mg/kg	07.25.19 21:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3096552 — Matrix: Soil — Date Prep: 07.25.19
Parent Sample Id: 632029-004 — MS Sample Id: 632029-004 S — MSD Sample Id: 632029-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.4	249	278	102	278	102	90-110	0	20	mg/kg	07.25.19 23:20	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3096439 — Matrix: Solid — Date Prep: 07.24.19
MB Sample Id: 7682726-1-BLK — LCS Sample Id: 7682726-1-BKS — LCSD Sample Id: 7682726-1-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	958	96	986	99	70-135	3	20	mg/kg	07.24.19 22:10	
Diesel Range Organics (DRO)	<8.13	1000	988	99	982	98	70-135	1	20	mg/kg	07.24.19 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		90		99		70-135	%	07.24.19 22:10
o-Terphenyl	72		76		78		70-135	%	07.24.19 22:10

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

QC Summary 631827

LT Environmental, Inc.

JRU #2 193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096439 Matrix: Soil Date Prep: 07.24.19
Parent Sample Id: 631827-001 MS Sample Id: 631827-001 S MSD Sample Id: 631827-001 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)	9.74	997	1040	103	1160	115	70-135	11	20	mg/kg	07.25.19 08:59	
Diesel Range Organics (DRO)	83.5	997	970	89	1050	97	70-135	8	20	mg/kg	07.25.19 08:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		94		70-135	%	07.25.19 08:59
o-Terphenyl	70		74		70-135	%	07.25.19 08:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3096465 Matrix: Solid Date Prep: 07.24.19
MB Sample Id: 7682695-1-BLK LCS Sample Id: 7682695-1-BKS LCSD Sample Id: 7682695-1-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	0.100	100	0.105	105	70-130	5	35	mg/kg	07.25.19 01:00	
Toluene	<0.00200	0.100	0.0965	97	0.102	102	70-130	6	35	mg/kg	07.25.19 01:00	
Ethylbenzene	<0.00200	0.100	0.111	111	0.116	116	70-130	4	35	mg/kg	07.25.19 01:00	
m,p-Xylenes	<0.00400	0.200	0.227	114	0.237	119	70-130	4	35	mg/kg	07.25.19 01:00	
o-Xylene	<0.00200	0.100	0.109	109	0.115	115	70-130	5	35	mg/kg	07.25.19 01:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		102		107		70-130	%	07.25.19 01:00
4-Bromofluorobenzene	95		108		114		70-130	%	07.25.19 01:00

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3096465 Matrix: Soil Date Prep: 07.24.19
Parent Sample Id: 631827-002 MS Sample Id: 631827-002 S MSD Sample Id: 631827-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.105	105	0.0945	95	70-130	11	35	mg/kg	07.25.19 01:40	
Toluene	<0.00201	0.100	0.102	102	0.0921	92	70-130	10	35	mg/kg	07.25.19 01:40	
Ethylbenzene	<0.00201	0.100	0.116	116	0.104	104	70-130	11	35	mg/kg	07.25.19 01:40	
m,p-Xylenes	<0.00402	0.201	0.236	117	0.213	107	70-130	10	35	mg/kg	07.25.19 01:40	
o-Xylene	<0.00201	0.100	0.114	114	0.103	103	70-130	10	35	mg/kg	07.25.19 01:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		101		70-130	%	07.25.19 01:40
4-Bromofluorobenzene	131	**	118		70-130	%	07.25.19 01:40

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 631827

Page 1 of 1

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

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 #2 193H	**Turn Around**	
Project Number:	1/4/2019	Routine ☐	
Project Location	Eddy county	Rush: 2 days	
Sampler's Name:	Fatima Smith	Due Date: 7/26/19	
PO #:	2RP-5194	**Quote #:**	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	**Wet Ice:**	(Yes) No
Temperature (°C):	3.1 2.9	**Thermometer ID**	R8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	**Correction Factor:**	-0.2
Sample Custody Seals:	Yes No (N/A)	**Total Containers:**	8

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
	PH01	S	7/22/19	0944	2'	1	X	X	X	
	PH01A			1010	6'		X	X	X	
	PH02			1030	4'		X	X	X	
	PH02A			1049	6'		X	X	X	
	PH03			1109	2'		X	X	X	
	PH03A			1131	6'		X	X	X	
	PH04			1233	1'		X	X	X	
	PH04A			1249	4'		X	X	X	
	PH05			1309	2'		X	X	X	
	PH05A			1329	5'		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			800 7/23/19	2		7/23/19 08:10
3		FedEx	7/23/19 14:00	4		7/24/19 1145
5				6		

Revised Date 022619 Rev. 2019.1

Final 1.000

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/24/2019 11:45:00 AM

Work Order #: 631827

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)?	2.9
#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: 07/24/2019

Checklist reviewed by: Jessica Kramer Date: 07/25/2019

Analytical Report 632029

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU D1 #2 193H

012919009

26-JUL-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)

26-JUL-19

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

Reference: XENCO Report No(s): **632029**
JRU D1 #2 193H
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) 632029. 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. 632029 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

Sample Cross Reference 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH06	S	07-23-19 09:07	2 ft	632029-001
PH06A	S	07-23-19 09:43	8 ft	632029-002
PH06B	S	07-23-19 10:35	14 ft	632029-003
PH07	S	07-23-19 12:45	1 ft	632029-004
PH07A	S	07-23-19 13:12	6 ft	632029-005

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096593 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered below QC limits. Samples affected are: 7682825-1-BLK.

Batch: LBA-3096644 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 632029

LT Environmental, Inc., Arvada, CO

Project Name: JRU D1 #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Jul-25-19 11:25 am
Report Date: 26-JUL-19
Project Manager: Jessica Kramer

Analysis Requested																	
	Lab Id:	632029-001		632029-002		632029-003		632029-004		632029-005							
	Field Id:	PH06		PH06A		PH06B		PH07		PH07A							
	Depth:	2- ft		8- ft		14- ft		1- ft		6- ft							
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL							
	Sampled:	Jul-23-19 09:07		Jul-23-19 09:43		Jul-23-19 10:35		Jul-23-19 12:45		Jul-23-19 13:12							
BTEX by EPA 8021B	***Extracted:***	Jul-25-19 15:00		Jul-25-19 15:00		Jul-25-19 15:00		Jul-25-19 15:00		Jul-25-19 15:00							
	Analyzed:	Jul-26-19 05:17		Jul-26-19 05:38		Jul-26-19 05:58		Jul-26-19 06:18		Jul-26-19 06:38							
	Units/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	<0.00199	0.00199	<0.00200	0.00200						
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200						
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200						
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00396	0.00396	<0.00398	0.00398	<0.00401	0.00401						
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200						
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200						
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200						
Chloride by EPA 300	***Extracted:***	Jul-25-19 16:15		Jul-25-19 16:15		Jul-25-19 16:15		Jul-25-19 16:15		Jul-25-19 16:15							
	Analyzed:	Jul-25-19 22:55		Jul-25-19 23:01		Jul-25-19 23:08		Jul-25-19 23:14		Jul-25-19 23:33							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		15.1	4.95	91.2	5.03	98.3	5.02	24.4	4.97	51.9	4.95						
TPH by SW8015 Mod	***Extracted:***	Jul-25-19 16:00		Jul-25-19 16:00		Jul-25-19 16:00		Jul-25-19 16:00		Jul-25-19 15:00							
	Analyzed:	Jul-26-19 08:04		Jul-26-19 08:28		Jul-26-19 08:52		Jul-26-19 09:17		Jul-25-19 22:27							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9						
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	68.9	15.0	<14.9	14.9						
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						
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	68.9	15.0	<14.9	14.9						
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	68.9	15.0	<14.9	14.9						

Jessica Kramer
Project Assistant

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-001	Date Collected:	07.23.19 09.07	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.1**	4.95	mg/kg	07.25.19 22.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 16.00	Basis:	Wet Weight
Seq Number:	3096594				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.19 08.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 08.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 08.04	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 08.04	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 08.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	07.26.19 08.04	
o-Terphenyl	84-15-1	74	%	70-135	07.26.19 08.04	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-001	Date Collected:	07.23.19 09.07	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096644				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.26.19 05.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.26.19 05.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.26.19 05.17	
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.26.19 05.17	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-002	Date Collected:	07.23.19 09.43	Sample Depth:	8 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**91.2**	5.03	mg/kg	07.25.19 23.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 16.00	Basis:	Wet Weight
Seq Number:	3096594				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.19 08.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 08.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 08.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 08.28	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 08.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-135	07.26.19 08.28	
o-Terphenyl	84-15-1	75	%	70-135	07.26.19 08.28	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-002	Date Collected:	07.23.19 09.43	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096644				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.26.19 05.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.26.19 05.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.26.19 05.38	
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.26.19 05.38	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-003	Date Collected:	07.23.19 10.35	Sample Depth:	14 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**98.3**	5.02	mg/kg	07.25.19 23.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 16.00	Basis:	Wet Weight
Seq Number:	3096594				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.19 08.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.19 08.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 08.52	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.19 08.52	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.26.19 08.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	07.26.19 08.52	
o-Terphenyl	84-15-1	72	%	70-135	07.26.19 08.52	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-003	Date Collected:	07.23.19 10.35	Sample Depth:	14 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096644				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.26.19 05.58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.26.19 05.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.26.19 05.58	
1,4-Difluorobenzene	540-36-3	106	%	70-130	07.26.19 05.58	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-004	Date Collected:	07.23.19 12.45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.4**	4.97	mg/kg	07.25.19 23.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 16.00	Basis:	Wet Weight
Seq Number:	3096594				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.19 09.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**68.9**	15.0	mg/kg	07.26.19 09.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.26.19 09.17	U	1
Total TPH	PHC635	**68.9**	15.0	mg/kg	07.26.19 09.17		1
Total GRO-DRO	PHC628	**68.9**	15.0	mg/kg	07.26.19 09.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	07.26.19 09.17	
o-Terphenyl	84-15-1	83	%	70-135	07.26.19 09.17	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-004	Date Collected:	07.23.19 12.45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096644				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.26.19 06.18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.26.19 06.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.26.19 06.18	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.26.19 06.18	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-005	Date Collected:	07.23.19 13.12	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.25.19 16.15	Basis:	Wet Weight
Seq Number:	3096552				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.9**	4.95	mg/kg	07.25.19 23.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096593				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.25.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.25.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.25.19 22.27	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.25.19 22.27	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.25.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	07.25.19 22.27	
o-Terphenyl	84-15-1	96	%	70-135	07.25.19 22.27	

Certificate of Analytical Results 632029

LT Environmental, Inc., Arvada, CO

JRU D1 #2 193H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.25.19 11.25
Lab Sample Id:	632029-005	Date Collected:	07.23.19 13.12	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALG			% Moisture:	
Analyst:	FOV	Date Prep:	07.25.19 15.00	Basis:	Wet Weight
Seq Number:	3096644				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.26.19 06.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.26.19 06.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	07.26.19 06.38	
1,4-Difluorobenzene	540-36-3	105	%	70-130	07.26.19 06.38	

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 632029

LT Environmental, Inc.

JRU D1 #2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096552 Matrix: Solid Date Prep: 07.25.19
MB Sample Id: 7682868-1-BLK LCS Sample Id: 7682868-1-BKS LCSD Sample Id: 7682868-1-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	253	101	90-110	0	20	mg/kg	07.25.19 21:33	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096552 Matrix: Soil Date Prep: 07.25.19
Parent Sample Id: 631827-010 MS Sample Id: 631827-010 S MSD Sample Id: 631827-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	268	251	514	98	516	99	90-110	0	20	mg/kg	07.25.19 21:52	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3096552 Matrix: Soil Date Prep: 07.25.19
Parent Sample Id: 632029-004 MS Sample Id: 632029-004 S MSD Sample Id: 632029-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.4	249	278	102	278	102	90-110	0	20	mg/kg	07.25.19 23:20	

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

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 632029

LT Environmental, Inc.

JRU D1 #2 193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096594 Matrix: Solid Date Prep: 07.25.19
MB Sample Id: 7682826-1-BLK LCS Sample Id: 7682826-1-BKS LCSD Sample Id: 7682826-1-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	890	89	856	86	70-135	4	20	mg/kg	07.25.19 23:39	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	1000	100	70-135	6	20	mg/kg	07.25.19 23:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		82		82		70-135	%	07.25.19 23:39
o-Terphenyl	87		95		98		70-135	%	07.25.19 23:39

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: 3096594 Matrix: Soil Date Prep: 07.25.19
Parent Sample Id: 631897-001 MS Sample Id: 631897-001 S MSD Sample Id: 631897-001 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)	254	998	1120	87	1060	81	70-135	6	20	mg/kg	07.26.19 00:51	
Diesel Range Organics (DRO)	1280	998	2040	76	2060	78	70-135	1	20	mg/kg	07.26.19 00:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		76		70-135	%	07.26.19 00:51
o-Terphenyl	94		89		70-135	%	07.26.19 00:51

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

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

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

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

QC Summary 632029

LT Environmental, Inc.

JRU D1 #2 193H

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

Seq Number: 3096644 Matrix: Solid Date Prep: 07.25.19

MB Sample Id: 7682807-1-BLK LCS Sample Id: 7682807-1-BKS LCSD Sample Id: 7682807-1-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	0.108	108	70-130	7	35	mg/kg	07.26.19 01:57	
Toluene	<0.00200	0.100	0.0979	98	0.105	105	70-130	7	35	mg/kg	07.26.19 01:57	
Ethylbenzene	<0.00200	0.100	0.113	113	0.118	118	70-130	4	35	mg/kg	07.26.19 01:57	
m,p-Xylenes	<0.00400	0.200	0.232	116	0.243	122	70-130	5	35	mg/kg	07.26.19 01:57	
o-Xylene	<0.00200	0.100	0.110	110	0.119	119	70-130	8	35	mg/kg	07.26.19 01:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		104		70-130	%	07.26.19 01:57
4-Bromofluorobenzene	95		109		123		70-130	%	07.26.19 01:57

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

Seq Number: 3096644 Matrix: Soil Date Prep: 07.25.19

Parent Sample Id: 632028-002 MS Sample Id: 632028-002 S MSD Sample Id: 632028-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0969	96	0.0977	97	70-130	1	35	mg/kg	07.26.19 02:37	
Toluene	<0.00202	0.101	0.0929	92	0.0936	93	70-130	1	35	mg/kg	07.26.19 02:37	
Ethylbenzene	<0.00202	0.101	0.100	99	0.102	101	70-130	2	35	mg/kg	07.26.19 02:37	
m,p-Xylenes	<0.00404	0.202	0.205	101	0.209	103	70-130	2	35	mg/kg	07.26.19 02:37	
o-Xylene	<0.00202	0.101	0.0999	99	0.103	102	70-130	3	35	mg/kg	07.26.19 02:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		70-130	%	07.26.19 02:37
4-Bromofluorobenzene	116		122		70-130	%	07.26.19 02:37

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

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 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

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Work Order No: 632079

Project Manager:	Dan Moir	**Bill to: (if different)**	Kyle Littrell
Company Name:	LT Environmental	**Company Name:**	XTO Energy
Address:	3300 N-A Street	**Address:**	3104 E Greene St
City, State ZIP:	Midland, TX 79705	**City, State ZIP:**	Carlsbad, NM 88220
Phone:	432-236-3849	**Email:**	fsmith@Henv.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 #2 193H	**Turn Around**	
Project Number:	012919009	Routine ☐	
Project Location	Eddy county	Rush: 2 days	
Sampler's Name:	Fatima Smith	Due Date: 7/24/19	
PO #:	2RP-5194	**Quote #:**	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	**Wet Ice:**	(Yes) No
Temperature (°C):	0.4/0.4	**Thermometer ID:**	DE
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	**Correction Factor:**	-0.2
Sample Custody Seals:	Yes (No) N/A	**Total Containers:**	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
	PH06	S	7/23/19	0907	2'	1		X	X	X
	PH06A	S		0943	8'	1		X	X	X
	PH06B	S		1035	14'	1		X	X	X
	PH07	S		1245	1'	1		X	X	X
	PH07A	S		1312	6'	1		X	X	X

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			7.24.19 900	2		7/24/19 9:20
3				4		7/25/19
5				6		115

Revised Date 022619 Rev. 2019.1

Final 1.000

Page 20 of 21

After printing this label:
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Analytical Report 632819

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU D1#193H

012919009

29-AUG-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)

29-AUG-19

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

Reference: XENCO Report No(s): **632819**
JRU D1#193H
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) 632819. 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. 632819 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

Sample Cross Reference 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	07-29-19 12:40	4 ft	632819-001
FS02	S	07-29-19 12:54	4 ft	632819-002
FS03	S	07-29-19 13:03	4 ft	632819-003
FS04	S	07-29-19 13:26	4 ft	632819-004
FS05	S	07-29-19 13:36	4 ft	632819-005
FS06	S	07-29-19 13:38	4 ft	632819-006
FS07	S	07-29-19 14:09	4 ft	632819-007
FS08	S	07-29-19 14:21	4 ft	632819-008
FS09	S	07-29-19 14:31	4 ft	632819-009
FS10	S	07-29-19 15:00	4 ft	632819-010
FS11	S	07-29-19 15:07	4 ft	632819-011
FS12	S	07-29-19 15:15	4 ft	632819-012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3097728 BTEX by EPA 8021B

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

Certificate of Analysis Summary 632819

LT Environmental, Inc., Arvada, CO

Project Name: JRU D1#193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Aug-01-19 03:00 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632819-001		632819-002		632819-003		632819-004		632819-005		632819-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-29-19 12:40		Jul-29-19 12:54		Jul-29-19 13:03		Jul-29-19 13:26		Jul-29-19 13:36		Jul-29-19 13:38	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30	
	Analyzed:	Aug-06-19 13:03		Aug-06-19 13:23		Aug-06-19 13:47		Aug-06-19 14:08		Aug-06-19 14:28		Aug-06-19 14:48	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00400	0.00400	<0.00396	0.00396	<0.00400	0.00400
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-05-19 18:00		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15	
	Analyzed:	Aug-06-19 05:14		Aug-06-19 09:55		Aug-06-19 10:17		Aug-06-19 10:23		Aug-06-19 10:28		Aug-06-19 10:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		282	5.00	403	5.04	1600	25.3	262	4.98	289	5.04	385	5.03
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00	
	Analyzed:	Aug-05-19 15:33		Aug-05-19 15:56		Aug-05-19 16:20		Aug-05-19 16:43		Aug-05-19 17:06		Aug-05-19 17:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	63.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	63.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<14.9	14.9	63.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 632819

LT Environmental, Inc., Arvada, CO

Project Name: JRU D1#193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Aug-01-19 03:00 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	632819-007		632819-008		632819-009		632819-010		632819-011		632819-012	
	Field Id:	FS07		FS08		FS09		FS10		FS11		FS12	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-29-19 14:09		Jul-29-19 14:21		Jul-29-19 14:31		Jul-29-19 15:00		Jul-29-19 15:07		Jul-29-19 15:15	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30		Aug-05-19 10:30	
	Analyzed:	Aug-06-19 15:08		Aug-06-19 15:28		Aug-06-19 15:48		Aug-06-19 16:08		Aug-06-19 17:27		Aug-06-19 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	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00396	0.00396	<0.00398	0.00398	<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<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:***	Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15		Aug-06-19 09:15	
	Analyzed:	Aug-06-19 10:51		Aug-06-19 10:56		Aug-06-19 11:02		Aug-06-19 11:07		Aug-06-19 11:13		Aug-06-19 11:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		150	5.04	226	4.99	163	4.98	28.5	4.96	72.0	5.01	285	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00		Aug-02-19 13:00		Aug-05-19 10:00		Aug-05-19 10:00	
	Analyzed:	Aug-05-19 17:54		Aug-05-19 18:17		Aug-05-19 18:41		Aug-05-19 19:05		Aug-06-19 05:16		Aug-06-19 05:39	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		52.4	15.0	<15.0	15.0	<15.0	15.0	41.8	14.9	<15.0	15.0	40.0	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		52.4	15.0	<15.0	15.0	<15.0	15.0	41.8	14.9	<15.0	15.0	40.0	15.0
Total GRO-DRO		52.4	15.0	<15.0	15.0	<15.0	15.0	41.8	14.9	<15.0	15.0	40.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-001	Date Collected:	07.29.19 12.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	08.05.19 18.00	Basis:	Wet Weight
Seq Number:	3097578			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**282**	5.00	mg/kg	08.06.19 05.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 15.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.05.19 15.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.05.19 15.33	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.05.19 15.33	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.05.19 15.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.05.19 15.33	
o-Terphenyl	84-15-1	77	%	70-135	08.05.19 15.33	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-001	Date Collected:	07.29.19 12.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.06.19 13.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.06.19 13.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.06.19 13.03	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.06.19 13.03	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-002	Date Collected:	07.29.19 12.54	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**403**	5.04	mg/kg	08.06.19 09.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 15.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**63.9**	15.0	mg/kg	08.05.19 15.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 15.56	U	1
Total TPH	PHC635	**63.9**	15.0	mg/kg	08.05.19 15.56		1
Total GRO-DRO	PHC628	**63.9**	15.0	mg/kg	08.05.19 15.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.05.19 15.56	
o-Terphenyl	84-15-1	94	%	70-135	08.05.19 15.56	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-002	Date Collected:	07.29.19 12.54	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.06.19 13.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.06.19 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.06.19 13.23	
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.06.19 13.23	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-003	Date Collected:	07.29.19 13.03	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1600**	25.3	mg/kg	08.06.19 10.17		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 16.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 16.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 16.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 16.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 16.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.05.19 16.20	
o-Terphenyl	84-15-1	76	%	70-135	08.05.19 16.20	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-003	Date Collected:	07.29.19 13.03	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.06.19 13.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.06.19 13.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.06.19 13.47	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.06.19 13.47	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-004	Date Collected:	07.29.19 13.26	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**262**	4.98	mg/kg	08.06.19 10.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 16.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 16.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 16.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 16.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 16.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.05.19 16.43	
o-Terphenyl	84-15-1	79	%	70-135	08.05.19 16.43	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-004	Date Collected:	07.29.19 13.26	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.06.19 14.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.06.19 14.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.06.19 14.08	
1,4-Difluorobenzene	540-36-3	87	%	70-130	08.06.19 14.08	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-005	Date Collected:	07.29.19 13.36	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**289**	5.04	mg/kg	08.06.19 10.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 17.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 17.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 17.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 17.06	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 17.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.05.19 17.06	
o-Terphenyl	84-15-1	87	%	70-135	08.05.19 17.06	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-005	Date Collected:	07.29.19 13.36	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.06.19 14.28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.06.19 14.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.06.19 14.28	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.06.19 14.28	

Certificate of Analytical Results 632819

LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-006	Date Collected:	07.29.19 13.38	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**385**	5.03	mg/kg	08.06.19 10.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 17.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 17.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 17.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 17.30	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 17.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.05.19 17.30	
o-Terphenyl	84-15-1	84	%	70-135	08.05.19 17.30	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-006	Date Collected:	07.29.19 13.38	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.06.19 14.48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.06.19 14.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.06.19 14.48	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.06.19 14.48	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-007	Date Collected:	07.29.19 14.09	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**150**	5.04	mg/kg	08.06.19 10.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 17.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.4**	15.0	mg/kg	08.05.19 17.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 17.54	U	1
Total TPH	PHC635	**52.4**	15.0	mg/kg	08.05.19 17.54		1
Total GRO-DRO	PHC628	**52.4**	15.0	mg/kg	08.05.19 17.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.05.19 17.54	
o-Terphenyl	84-15-1	75	%	70-135	08.05.19 17.54	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-007	Date Collected:	07.29.19 14.09	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.06.19 15.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.06.19 15.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.06.19 15.08	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.06.19 15.08	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-008	Date Collected:	07.29.19 14.21	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**226**	4.99	mg/kg	08.06.19 10.56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 18.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 18.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 18.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 18.17	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 18.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.05.19 18.17	
o-Terphenyl	84-15-1	71	%	70-135	08.05.19 18.17	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-008	Date Collected:	07.29.19 14.21	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.06.19 15.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.06.19 15.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.06.19 15.28	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.06.19 15.28	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-009	Date Collected:	07.29.19 14.31	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**163**	4.98	mg/kg	08.06.19 11.02		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 18.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.05.19 18.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.05.19 18.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.05.19 18.41	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.05.19 18.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.05.19 18.41	
o-Terphenyl	84-15-1	83	%	70-135	08.05.19 18.41	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-009	Date Collected:	07.29.19 14.31	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.06.19 15.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.06.19 15.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.06.19 15.48	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.06.19 15.48	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-010	Date Collected:	07.29.19 15.00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.5**	4.96	mg/kg	08.06.19 11.07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.02.19 13.00	Basis:	Wet Weight
Seq Number:	3097580			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	08.05.19 19.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**41.8**	14.9	mg/kg	08.05.19 19.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.05.19 19.05	U	1
Total TPH	PHC635	**41.8**	14.9	mg/kg	08.05.19 19.05		1
Total GRO-DRO	PHC628	**41.8**	14.9	mg/kg	08.05.19 19.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.05.19 19.05	
o-Terphenyl	84-15-1	90	%	70-135	08.05.19 19.05	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**FS10**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-010	Date Collected:	07.29.19 15.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.06.19 16.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.06.19 16.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.06.19 16.08	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.06.19 16.08	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-011	Date Collected:	07.29.19 15.07	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**72.0**	5.01	mg/kg	08.06.19 11.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.05.19 10.00	Basis:	Wet Weight
Seq Number:	3097581			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	08.06.19 05.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.06.19 05.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.06.19 05.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.06.19 05.16	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.06.19 05.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.06.19 05.16	
o-Terphenyl	84-15-1	80	%	70-135	08.06.19 05.16	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-011	Date Collected:	07.29.19 15.07	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.06.19 17.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.06.19 17.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.06.19 17.27	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.06.19 17.27	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-012	Date Collected:	07.29.19 15.15	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.06.19 09.15	Basis:	Wet Weight
Seq Number:	3097697			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**285**	4.99	mg/kg	08.06.19 11.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.05.19 10.00	Basis:	Wet Weight
Seq Number:	3097581			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	08.06.19 05.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	**40.0**	15.0	mg/kg	08.06.19 05.39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.06.19 05.39	U	1
Total TPH	PHC635	**40.0**	15.0	mg/kg	08.06.19 05.39		1
Total GRO-DRO	PHC628	**40.0**	15.0	mg/kg	08.06.19 05.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.06.19 05.39	
o-Terphenyl	84-15-1	77	%	70-135	08.06.19 05.39	

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LT Environmental, Inc., Arvada, CO

JRU D1#193H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	08.01.19 15.00
Lab Sample Id:	632819-012	Date Collected:	07.29.19 15.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.05.19 10.30	Basis:	Wet Weight
Seq Number:	3097728			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.06.19 17.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.06.19 17.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.06.19 17.47	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.06.19 17.47	

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 632819

LT Environmental, Inc.

JRU D1#193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097578 Matrix: Solid Date Prep: 08.05.19
MB Sample Id: 7683563-1-BLK LCS Sample Id: 7683563-1-BKS LCSD Sample Id: 7683563-1-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	256	102	257	103	90-110	0	20	mg/kg	08.06.19 02:43	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097697 Matrix: Solid Date Prep: 08.06.19
MB Sample Id: 7683581-1-BLK LCS Sample Id: 7683581-1-BKS LCSD Sample Id: 7683581-1-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	263	105	259	104	90-110	2	20	mg/kg	08.06.19 09:30	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097578 Matrix: Soil Date Prep: 08.05.19
Parent Sample Id: 632825-001 MS Sample Id: 632825-001 S MSD Sample Id: 632825-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.21	253	269	104	268	104	90-110	0	20	mg/kg	08.06.19 02:59	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097578 Matrix: Soil Date Prep: 08.05.19
Parent Sample Id: 632825-009 MS Sample Id: 632825-009 S MSD Sample Id: 632825-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	343	251	588	98	588	98	90-110	0	20	mg/kg	08.06.19 04:09	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097697 Matrix: Soil Date Prep: 08.06.19
Parent Sample Id: 632819-002 MS Sample Id: 632819-002 S MSD Sample Id: 632819-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	403	252	667	105	677	109	90-110	1	20	mg/kg	08.06.19 10:00	

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

QC Summary 632819

LT Environmental, Inc.

JRU D1#193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097697 Matrix: Soil Date Prep: 08.06.19
Parent Sample Id: 632819-012 MS Sample Id: 632819-012 S MSD Sample Id: 632819-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	285	250	556	108	560	110	90-110	1	20	mg/kg	08.06.19 11:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3097580 Matrix: Solid Date Prep: 08.02.19
MB Sample Id: 7683388-1-BLK LCS Sample Id: 7683388-1-BKS LCSD Sample Id: 7683388-1-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	976	98	1060	106	70-135	8	20	mg/kg	08.05.19 09:41	
Diesel Range Organics (DRO)	<8.13	1000	1030	103	1100	110	70-135	7	20	mg/kg	08.05.19 09:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		85		95		70-135	%	08.05.19 09:41
o-Terphenyl	87		97		105		70-135	%	08.05.19 09:41

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3097581 Matrix: Solid Date Prep: 08.05.19
MB Sample Id: 7683530-1-BLK LCS Sample Id: 7683530-1-BKS LCSD Sample Id: 7683530-1-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	1140	114	1060	106	70-135	7	20	mg/kg	08.05.19 20:17	
Diesel Range Organics (DRO)	<8.13	1000	1180	118	1100	110	70-135	7	20	mg/kg	08.05.19 20:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		100		90		70-135	%	08.05.19 20:17
o-Terphenyl	88		88		85		70-135	%	08.05.19 20:17

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3097580 Matrix: Soil Date Prep: 08.02.19
Parent Sample Id: 632559-001 MS Sample Id: 632559-001 S MSD Sample Id: 632559-001 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)	10.1	999	987	98	1010	100	70-135	2	20	mg/kg	08.05.19 10:51	
Diesel Range Organics (DRO)	14.2	999	1030	102	1080	107	70-135	5	20	mg/kg	08.05.19 10:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		89		70-135	%	08.05.19 10:51
o-Terphenyl	96		88		70-135	%	08.05.19 10:51

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

QC Summary 632819

LT Environmental, Inc.

JRU D1#193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3097581 Matrix: Soil Date Prep: 08.05.19
Parent Sample Id: 632825-001 MS Sample Id: 632825-001 S MSD Sample Id: 632825-001 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)	9.21	996	1090	109	1080	107	70-135	1	20	mg/kg	08.05.19 21:28	
Diesel Range Organics (DRO)	13.5	996	1110	110	1110	110	70-135	0	20	mg/kg	08.05.19 21:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		96		70-135	%	08.05.19 21:28
o-Terphenyl	90		87		70-135	%	08.05.19 21:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3097728 Matrix: Solid Date Prep: 08.05.19
MB Sample Id: 7683501-1-BLK LCS Sample Id: 7683501-1-BKS LCSD Sample Id: 7683501-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000440	0.100	0.107	107	0.0946	95	70-130	12	35	mg/kg	08.06.19 11:03	
Toluene	<0.000456	0.100	0.0955	96	0.0848	85	70-130	12	35	mg/kg	08.06.19 11:03	
Ethylbenzene	<0.000565	0.100	0.0931	93	0.0836	84	70-130	11	35	mg/kg	08.06.19 11:03	
m,p-Xylenes	<0.00101	0.200	0.183	92	0.166	83	70-130	10	35	mg/kg	08.06.19 11:03	
o-Xylene	<0.000344	0.100	0.0959	96	0.0869	87	70-130	10	35	mg/kg	08.06.19 11:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		102		102		70-130	%	08.06.19 11:03
4-Bromofluorobenzene	103		104		99		70-130	%	08.06.19 11:03

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3097728 Matrix: Soil Date Prep: 08.05.19
Parent Sample Id: 632819-001 MS Sample Id: 632819-001 S MSD Sample Id: 632819-001 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	0.0858	86	0.0919	92	70-130	7	35	mg/kg	08.06.19 11:43	
Toluene	<0.000455	0.0998	0.0757	76	0.0820	82	70-130	8	35	mg/kg	08.06.19 11:43	
Ethylbenzene	<0.00200	0.0998	0.0740	74	0.0802	81	70-130	8	35	mg/kg	08.06.19 11:43	
m,p-Xylenes	<0.00101	0.200	0.145	73	0.158	79	70-130	9	35	mg/kg	08.06.19 11:43	
o-Xylene	<0.00200	0.0998	0.0764	77	0.0842	85	70-130	10	35	mg/kg	08.06.19 11:43	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		106		70-130	%	08.06.19 11:43
4-Bromofluorobenzene	104		112		70-130	%	08.06.19 11:43

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

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

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

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

Chain of Custody

Work Order No: e32819

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)

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

Work Order Comments

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

Project Name:	JRUDI #2193H	Turn Around	
Project Number:	012919009	Routine ☑	
P.O. Number:	2RP-5194	Rush:	
Sampler's Name:	Fatima Smith	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:	12	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS02	S	7/29/19	1240	4'	1	X	X	X
FS03			1254			X	X	X
FS04			1303			X	X	X
FS05			1326			X	X	X
FS06			1336			X	X	X
FS07			1338			X	X	X
FS08			1409			X	X	X
FS09			1421			X	X	X
FS10			1431	↓		X	X	X
FS11	↓	↓	1500	4'	↓	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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fatima		08/01/19 14:35	2		08/01/19 15:00
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

1.001

Chain of Custody

Work Order No: 632819

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:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU D1 #2 193H	Turn Around	
Project Number:	012919009	Routine	☑
P.O. Number:	2RP-5194	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS12	S	7/29/19	1507	4'	1	X	X	X
FS13	S	7/29/19	1515	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			08/01/2019 14:35	2		08/01/2019 15:20
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

1.001

Inter-Office Shipment

IOS Number **45494**

Date/Time: 08/02/19 10:20
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
632819-001	S	FS02	07/29/19 12:40	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-001	S	FS02	07/29/19 12:40	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-001	S	FS02	07/29/19 12:40	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-002	S	FS03	07/29/19 12:54	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-002	S	FS03	07/29/19 12:54	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-002	S	FS03	07/29/19 12:54	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-003	S	FS04	07/29/19 13:03	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-003	S	FS04	07/29/19 13:03	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-003	S	FS04	07/29/19 13:03	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-004	S	FS05	07/29/19 13:26	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-004	S	FS05	07/29/19 13:26	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-004	S	FS05	07/29/19 13:26	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-005	S	FS06	07/29/19 13:36	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-005	S	FS06	07/29/19 13:36	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-005	S	FS06	07/29/19 13:36	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-006	S	FS07	07/29/19 13:38	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-006	S	FS07	07/29/19 13:38	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-006	S	FS07	07/29/19 13:38	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-007	S	FS08	07/29/19 14:09	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-007	S	FS08	07/29/19 14:09	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-007	S	FS08	07/29/19 14:09	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-008	S	FS09	07/29/19 14:21	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-008	S	FS09	07/29/19 14:21	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-008	S	FS09	07/29/19 14:21	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-009	S	FS10	07/29/19 14:31	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **45494**

Date/Time: 08/02/19 10:20
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
632819-009	S	FS10	07/29/19 14:31	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-009	S	FS10	07/29/19 14:31	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-010	S	FS11	07/29/19 15:00	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-010	S	FS11	07/29/19 15:00	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-010	S	FS11	07/29/19 15:00	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-011	S	FS12	07/29/19 15:07	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	
632819-011	S	FS12	07/29/19 15:07	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-011	S	FS12	07/29/19 15:07	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-012	S	FS13	07/29/19 15:15	SW8015MOD_NM	TPH by SW8015 Mod	08/07/19	08/12/19	JKR	GRO-DRO PHCC10C28 PI	
632819-012	S	FS13	07/29/19 15:15	E300_CL	Chloride by EPA 300	08/07/19	01/25/20	JKR	CL	
632819-012	S	FS13	07/29/19 15:15	SW8021B	BTEX by EPA 8021B	08/07/19	08/12/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Elizabeth McClellan

Date Relinquished: 08/02/2019

Received By: 
Katie Lowe

Date Received:

Cooler Temperature:

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 45494

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 08/02/2019 10:20 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: 08/01/2019 03:00:00 PM

Work Order #: 632819

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?	**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: 08/02/2019

Checklist reviewed by: Jessica Kramer Date: 08/02/2019

Jessica Kramer

Analytical Report 633355

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU DI #2 193H

012919009

29-AUG-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)

29-AUG-19

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

Reference: XENCO Report No(s): **633355**
JRU DI #2 193H
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) 633355. 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. 633355 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

Sample Cross Reference 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	08-06-19 14:07	0 - 4 ft	633355-001
SW02	S	08-06-19 14:10	0 - 4 ft	633355-002
SW03	S	08-06-19 14:15	0 - 4 ft	633355-003
SW04	S	08-06-19 14:19	0 - 4 ft	633355-004
SW05	S	08-06-19 14:43	0 - 4 ft	633355-005
SW06	S	08-06-19 14:48	0 - 4 ft	633355-006
SW07	S	08-06-19 14:52	0 - 4 ft	633355-007
SW08	S	08-06-19 14:56	0 - 4 ft	633355-008
FS13	S	08-06-19 09:16	4 ft	633355-009
FS14	S	08-06-19 09:22	4 ft	633355-010
FS15	S	08-06-19 09:28	4 ft	633355-011
FS16	S	08-06-19 09:38	4 ft	633355-012
FS17	S	08-06-19 09:45	4 ft	633355-013
FS18	S	08-06-19 09:51	4 ft	633355-014
FS19	S	08-06-19 09:55	4 ft	633355-015
FS20	S	08-06-19 10:05	4 ft	633355-016
FS21	S	08-06-19 10:19	4 ft	633355-017
FS22	S	08-06-19 10:24	4 ft	633355-018
FS23	S	08-06-19 10:29	4 ft	633355-019
FS24	S	08-06-19 10:33	4 ft	633355-020
FS25	S	08-06-19 10:40	4 ft	633355-021
FS26	S	08-06-19 10:57	4 ft	633355-022
FS27	S	08-06-19 11:01	4 ft	633355-023
FS28	S	08-06-19 11:05	4 ft	633355-024
FS29	S	08-06-19 11:09	4 ft	633355-025
FS30	S	08-06-19 11:12	4 ft	633355-026
FS31	S	08-06-19 12:09	4 ft	633355-027
FS32	S	08-06-19 12:13	4 ft	633355-028
FS33	S	08-06-19 12:16	4 ft	633355-029
FS34	S	08-06-19 12:19	4 ft	633355-030
FS35	S	08-06-19 12:33	4 ft	633355-031
FS36	S	08-06-19 12:30	4 ft	633355-032
FS37	S	08-06-19 12:34	4 ft	633355-033
FS38	S	08-06-19 12:37	4 ft	633355-034
FS39	S	08-06-19 12:41	4 ft	633355-035
FS40	S	08-06-19 12:44	4 ft	633355-036
FS41	S	08-07-19 12:45	4 ft	633355-037
FS42	S	08-07-19 13:40	4 ft	633355-038
FS43	S	08-07-19 13:42	4 ft	633355-039
FS44	S	08-07-19 12:47	4 ft	633355-040
FS45	S	08-06-19 13:50	4 ft	633355-041

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3097995 Chloride by EPA 300
Lab Sample ID 633355-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 633355-003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3098041 Chloride by EPA 300
Lab Sample ID 633355-035 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: 633355-001, -002, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040, -041.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3098254 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: 633355-003.

Batch: LBA-3098311 BTEX by EPA 8021B
Lab Sample ID 633355-036 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, o-Xylene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes 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: 633355-036, -037, -038, -039, -040, -041.
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.

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU DI #2 193H

Project ID: *012919009*
Work Order Number(s): *633355*

Report Date: *29-AUG-19*
Date Received: *08/07/2019*

Batch: LBA-3098390 BTEX by EPA 8021B
Lab Sample ID 633355-016 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 633355-016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035.
The Laboratory Control Sample for Toluene, 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.

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-001		633355-002		633355-003		633355-004		633355-005		633355-006	
	Field Id:	SW01		SW02		SW03		SW04		SW05		SW06	
	Depth:	0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 14:07		Aug-06-19 14:10		Aug-06-19 14:15		Aug-06-19 14:19		Aug-06-19 14:43		Aug-06-19 14:48	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00	
	Analyzed:	Aug-09-19 10:12		Aug-09-19 10:32		Aug-09-19 10:52		Aug-09-19 11:12		Aug-09-19 11:32		Aug-09-19 12:51	
	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	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		0.0225	0.00199	0.00522	0.00200	0.0473	0.00200	0.00452	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	0.00639	0.00400	<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		0.0236	0.00199	<0.00200	0.00200	0.0424	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		0.0236	0.00199	<0.00200	0.00200	0.0488	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		0.0461	0.00199	0.00522	0.00200	0.0961	0.00200	0.00452	0.00200	<0.00201	0.00201	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00	
	Analyzed:	Aug-09-19 09:36		Aug-09-19 09:42		Aug-08-19 17:48		Aug-08-19 18:05		Aug-08-19 18:11		Aug-08-19 18:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2320	24.8	10100	99.4	566	4.97	533	5.00	894	4.96	199	4.95
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00	
	Analyzed:	Aug-11-19 12:21		Aug-11-19 13:17		Aug-11-19 13:36		Aug-11-19 13:55		Aug-11-19 14:14		Aug-11-19 14:33	
	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	15.3	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		198	15.0	1940	15.0	16.8	15.0	<15.0	15.0	86.3	15.0	22.6	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	235	15.0	<15.0	15.0	<15.0	15.0	18.5	15.0	<15.0	15.0
Total TPH		198	15.0	2190	15.0	16.8	15.0	<15.0	15.0	105	15.0	22.6	15.0
Total GRO-DRO		198	15.0	1960	15.0	16.8	15.0	<15.0	15.0	86.3	15.0	22.6	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-007		633355-008		633355-009		633355-010		633355-011		633355-012	
	Field Id:	SW07		SW08		FS13		FS14		FS15		FS16	
	Depth:	0-4 ft		0-4 ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 14:52		Aug-06-19 14:56		Aug-06-19 09:16		Aug-06-19 09:22		Aug-06-19 09:28		Aug-06-19 09:38	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00	
	Analyzed:	Aug-09-19 13:11		Aug-09-19 13:31		Aug-09-19 13:51		Aug-09-19 14:11		Aug-09-19 14:32		Aug-09-19 14:52	
	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	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	0.00317	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	<0.00397	0.00397	<0.00399	0.00399	<0.00400	0.00400	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	0.00792	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	0.00792	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	0.0111	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00	
	Analyzed:	Aug-08-19 18:22		Aug-08-19 18:39		Aug-08-19 18:44		Aug-08-19 18:50		Aug-08-19 19:07		Aug-08-19 18:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2890	24.8	3920	24.8	181	5.02	201	4.98	357	5.00	6550	49.9
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00	
	Analyzed:	Aug-11-19 14:52		Aug-11-19 15:11		Aug-11-19 15:30		Aug-11-19 15:49		Aug-11-19 16:27		Aug-11-19 16:46	
	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)		222	15.0	396	15.0	38.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		46.8	15.0	71.3	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		269	15.0	467	15.0	38.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		222	15.0	396	15.0	38.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-013		633355-014		633355-015		633355-016		633355-017		633355-018	
	Field Id:	FS17		FS18		FS19		FS20		FS21		FS22	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 09:45		Aug-06-19 09:51		Aug-06-19 09:55		Aug-06-19 10:05		Aug-06-19 10:19		Aug-06-19 10:24	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-08-19 12:00		Aug-08-19 12:00		Aug-08-19 12:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00	
	Analyzed:	Aug-09-19 15:12		Aug-09-19 15:32		Aug-09-19 15:52		Aug-13-19 06:26		Aug-13-19 06:46		Aug-13-19 07:06	
	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	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00396	0.00396	<0.00400	0.00400	<0.00400	0.00400	<0.00401	0.00401	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00200	0.00200	<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:***	Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00	
	Analyzed:	Aug-08-19 19:01		Aug-08-19 19:24		Aug-08-19 19:30		Aug-08-19 19:47		Aug-08-19 19:52		Aug-08-19 19:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1630	25.0	4520	24.8	2770	25.0	2090	25.1	5980	50.5	4680	25.0
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 13:00	
	Analyzed:	Aug-11-19 17:05		Aug-11-19 17:23		Aug-11-19 17:42		Aug-11-19 18:01		Aug-11-19 18:20		Aug-11-19 18:39	
	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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-019		633355-020		633355-021		633355-022		633355-023		633355-024	
	Field Id:	FS23		FS24		FS25		FS26		FS27		FS28	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 10:29		Aug-06-19 10:33		Aug-06-19 10:40		Aug-06-19 10:57		Aug-06-19 11:01		Aug-06-19 11:05	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00	
	Analyzed:	Aug-13-19 07:26		Aug-13-19 07:47		Aug-13-19 08:07		Aug-13-19 08:27		Aug-13-19 08:47		Aug-13-19 09:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Toluene		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398	<0.00399	0.00399	<0.00396	0.00396
o-Xylene		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Total BTEX		<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00200	0.00200	<0.00198	0.00198
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-08-19 16:00		Aug-09-19 08:30		Aug-08-19 15:00	
	Analyzed:	Aug-08-19 20:04		Aug-08-19 20:09		Aug-08-19 20:15		Aug-08-19 20:20		Aug-09-19 09:38		Aug-08-19 20:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1620	25.0	3980	25.3	893	4.98	2570	25.0	2340	24.8	871	5.00
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 13:00		Aug-09-19 13:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00	
	Analyzed:	Aug-11-19 18:58		Aug-11-19 19:17		Aug-11-19 20:51		Aug-11-19 21:47		Aug-11-19 22:06		Aug-11-19 22:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<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	46.8	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	46.8	14.9	19.2	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<14.9	14.9	<15.0	15.0	46.8	14.9	19.2	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-025		633355-026		633355-027		633355-028		633355-029		633355-030	
	Field Id:	FS29		FS30		FS31		FS32		FS33		FS34	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 11:09		Aug-06-19 11:12		Aug-06-19 12:09		Aug-06-19 12:13		Aug-06-19 12:16		Aug-06-19 12:19	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00	
	Analyzed:	Aug-13-19 09:27		Aug-13-19 10:46		Aug-13-19 11:06		Aug-13-19 11:26		Aug-13-19 11:46		Aug-13-19 12:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00397	0.00397	<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40	
	Analyzed:	Aug-09-19 05:57		Aug-09-19 06:15		Aug-09-19 06:21		Aug-09-19 06:27		Aug-09-19 06:33		Aug-09-19 06:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1230	5.00	742	5.03	206	5.05	77.5	4.98	232	5.04	161	5.04
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00	
	Analyzed:	Aug-11-19 22:44		Aug-11-19 23:02		Aug-11-19 23:21		Aug-11-19 23:39		Aug-11-19 23:58		Aug-12-19 00:17	
	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	<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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	633355-031		633355-032		633355-033		633355-034		633355-035		633355-036	
	Field Id:	FS35		FS36		FS37		FS38		FS39		FS40	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-19 12:33		Aug-06-19 12:30		Aug-06-19 12:34		Aug-06-19 12:37		Aug-06-19 12:41		Aug-06-19 12:44	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:00		Aug-09-19 10:30	
	Analyzed:	Aug-13-19 12:27		Aug-13-19 12:47		Aug-13-19 13:07		Aug-13-19 13:27		Aug-13-19 13:47		Aug-11-19 06:49	
	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	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398	<0.00397	0.00397	<0.00397	0.00397
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40	
	Analyzed:	Aug-09-19 06:57		Aug-09-19 07:03		Aug-09-19 07:09		Aug-09-19 07:15		Aug-09-19 07:21		Aug-09-19 07:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		229	4.99	124	4.97	164	5.00	145	5.02	176	5.05	201	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00	
	Analyzed:	Aug-12-19 00:54		Aug-12-19 01:13		Aug-12-19 01:32		Aug-12-19 01:50		Aug-12-19 02:09		Aug-12-19 02:28	
	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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	23.0	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	23.0	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	23.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 633355

LT Environmental, Inc., Arvada, CO

Project Name: JRU DI #2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Aug-07-19 02:07 pm
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	633355-037		633355-038		633355-039		633355-040		633355-041	
	Field Id:	FS41		FS42		FS43		FS44		FS45	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-07-19 12:45		Aug-07-19 13:40		Aug-07-19 13:42		Aug-07-19 12:47		Aug-06-19 13:50	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-09-19 10:30		Aug-09-19 10:30		Aug-09-19 10:30		Aug-09-19 10:30		Aug-09-19 10:30	
	Analyzed:	Aug-11-19 07:00		Aug-11-19 07:20		Aug-11-19 07:40		Aug-11-19 08:00		Aug-11-19 08:20	
	Units/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	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00399	0.00399	<0.00399	0.00399	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40		Aug-08-19 15:40	
	Analyzed:	Aug-09-19 07:45		Aug-09-19 08:03		Aug-09-19 09:12		Aug-09-19 09:18		Aug-09-19 09:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		3430	49.6	214	5.00	261	5.02	334	4.97	318	5.05
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 14:00		Aug-09-19 15:00	
	Analyzed:	Aug-12-19 02:46		Aug-12-19 03:05		Aug-12-19 03:24		Aug-12-19 03:43		Aug-11-19 08:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<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)		<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	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-001	Date Collected:	08.06.19 14.07	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2320**	24.8	mg/kg	08.09.19 09.36		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 12.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**198**	15.0	mg/kg	08.11.19 12.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 12.21	U	1
Total TPH	PHC635	**198**	15.0	mg/kg	08.11.19 12.21		1
Total GRO-DRO	PHC628	**198**	15.0	mg/kg	08.11.19 12.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.11.19 12.21	
o-Terphenyl	84-15-1	94	%	70-135	08.11.19 12.21	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-001	Date Collected:	08.06.19 14.07	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.09.19 10.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.09.19 10.12	U	1
Ethylbenzene	100-41-4	**0.0225**	0.00199	mg/kg	08.09.19 10.12		1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.09.19 10.12	U	1
o-Xylene	95-47-6	**0.0236**	0.00199	mg/kg	08.09.19 10.12		1
Total Xylenes	1330-20-7	**0.0236**	0.00199	mg/kg	08.09.19 10.12		1
Total BTEX		**0.0461**	0.00199	mg/kg	08.09.19 10.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	08.09.19 10.12	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.09.19 10.12	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-002	Date Collected:	08.06.19 14.10	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10100**	99.4	mg/kg	08.09.19 09.42		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**15.3**	15.0	mg/kg	08.11.19 13.17		1
Diesel Range Organics (DRO)	C10C28DRO	**1940**	15.0	mg/kg	08.11.19 13.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**235**	15.0	mg/kg	08.11.19 13.17		1
Total TPH	PHC635	**2190**	15.0	mg/kg	08.11.19 13.17		1
Total GRO-DRO	PHC628	**1960**	15.0	mg/kg	08.11.19 13.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.11.19 13.17	
o-Terphenyl	84-15-1	121	%	70-135	08.11.19 13.17	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-002	Date Collected:	08.06.19 14.10	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 10.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 10.32	U	1
Ethylbenzene	100-41-4	**0.00522**	0.00200	mg/kg	08.09.19 10.32		1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.09.19 10.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 10.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 10.32	U	1
Total BTEX		**0.00522**	0.00200	mg/kg	08.09.19 10.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.09.19 10.32	
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.09.19 10.32	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-003	Date Collected:	08.06.19 14.15	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**566**	4.97	mg/kg	08.08.19 17.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 13.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**16.8**	15.0	mg/kg	08.11.19 13.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 13.36	U	1
Total TPH	PHC635	**16.8**	15.0	mg/kg	08.11.19 13.36		1
Total GRO-DRO	PHC628	**16.8**	15.0	mg/kg	08.11.19 13.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.11.19 13.36	
o-Terphenyl	84-15-1	87	%	70-135	08.11.19 13.36	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-003	Date Collected:	08.06.19 14.15	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 10.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 10.52	U	1
Ethylbenzene	100-41-4	**0.0473**	0.00200	mg/kg	08.09.19 10.52		1
m,p-Xylenes	179601-23-1	**0.00639**	0.00400	mg/kg	08.09.19 10.52		1
o-Xylene	95-47-6	**0.0424**	0.00200	mg/kg	08.09.19 10.52		1
Total Xylenes	1330-20-7	**0.0488**	0.00200	mg/kg	08.09.19 10.52		1
Total BTEX		**0.0961**	0.00200	mg/kg	08.09.19 10.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	148	%	70-130	08.09.19 10.52	**
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.09.19 10.52	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-004	Date Collected:	08.06.19 14.19	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**533**	5.00	mg/kg	08.08.19 18.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 13.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 13.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 13.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 13.55	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 13.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 13.55	
o-Terphenyl	84-15-1	89	%	70-135	08.11.19 13.55	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-004	Date Collected:	08.06.19 14.19	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 11.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 11.12	U	1
Ethylbenzene	100-41-4	**0.00452**	0.00200	mg/kg	08.09.19 11.12		1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.09.19 11.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 11.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 11.12	U	1
Total BTEX		**0.00452**	0.00200	mg/kg	08.09.19 11.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.09.19 11.12	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.09.19 11.12	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-005	Date Collected:	08.06.19 14.43	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**894**	4.96	mg/kg	08.08.19 18.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 14.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**86.3**	15.0	mg/kg	08.11.19 14.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**18.5**	15.0	mg/kg	08.11.19 14.14		1
Total TPH	PHC635	**105**	15.0	mg/kg	08.11.19 14.14		1
Total GRO-DRO	PHC628	**86.3**	15.0	mg/kg	08.11.19 14.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.11.19 14.14	
o-Terphenyl	84-15-1	92	%	70-135	08.11.19 14.14	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-005	Date Collected:	08.06.19 14.43	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.09.19 11.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.09.19 11.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.09.19 11.32	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.09.19 11.32	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-006	Date Collected:	08.06.19 14.48	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**199**	4.95	mg/kg	08.08.19 18.16		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 14.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**22.6**	15.0	mg/kg	08.11.19 14.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 14.33	U	1
Total TPH	PHC635	**22.6**	15.0	mg/kg	08.11.19 14.33		1
Total GRO-DRO	PHC628	**22.6**	15.0	mg/kg	08.11.19 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.11.19 14.33	
o-Terphenyl	84-15-1	94	%	70-135	08.11.19 14.33	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-006	Date Collected:	08.06.19 14.48	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.09.19 12.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.09.19 12.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.09.19 12.51	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.09.19 12.51	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-007	Date Collected:	08.06.19 14.52	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2890**	24.8	mg/kg	08.08.19 18.22		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 14.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	**222**	15.0	mg/kg	08.11.19 14.52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**46.8**	15.0	mg/kg	08.11.19 14.52		1
Total TPH	PHC635	**269**	15.0	mg/kg	08.11.19 14.52		1
Total GRO-DRO	PHC628	**222**	15.0	mg/kg	08.11.19 14.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.11.19 14.52	
o-Terphenyl	84-15-1	106	%	70-135	08.11.19 14.52	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-007	Date Collected:	08.06.19 14.52	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.09.19 13.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 13.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.09.19 13.11	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.09.19 13.11	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-008	Date Collected:	08.06.19 14.56	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3920**	24.8	mg/kg	08.08.19 18.39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 15.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**396**	15.0	mg/kg	08.11.19 15.11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**71.3**	15.0	mg/kg	08.11.19 15.11		1
Total TPH	PHC635	**467**	15.0	mg/kg	08.11.19 15.11		1
Total GRO-DRO	PHC628	**396**	15.0	mg/kg	08.11.19 15.11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.11.19 15.11	
o-Terphenyl	84-15-1	104	%	70-135	08.11.19 15.11	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-008	Date Collected:	08.06.19 14.56	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.09.19 13.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 13.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.09.19 13.31	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.09.19 13.31	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-009	Date Collected:	08.06.19 09.16	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**181**	5.02	mg/kg	08.08.19 18.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 15.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**38.9**	15.0	mg/kg	08.11.19 15.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 15.30	U	1
Total TPH	PHC635	**38.9**	15.0	mg/kg	08.11.19 15.30		1
Total GRO-DRO	PHC628	**38.9**	15.0	mg/kg	08.11.19 15.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.11.19 15.30	
o-Terphenyl	84-15-1	126	%	70-135	08.11.19 15.30	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-009	Date Collected:	08.06.19 09.16	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.09.19 13.51	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.09.19 13.51	U	1
Ethylbenzene	100-41-4	**0.00317**	0.00198	mg/kg	08.09.19 13.51		1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.09.19 13.51	U	1
o-Xylene	95-47-6	**0.00792**	0.00198	mg/kg	08.09.19 13.51		1
Total Xylenes	1330-20-7	**0.00792**	0.00198	mg/kg	08.09.19 13.51		1
Total BTEX		**0.0111**	0.00198	mg/kg	08.09.19 13.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.09.19 13.51	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.09.19 13.51	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-010	Date Collected:	08.06.19 09.22	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**201**	4.98	mg/kg	08.08.19 18.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 15.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 15.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 15.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 15.49	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 15.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	08.11.19 15.49	
o-Terphenyl	84-15-1	104	%	70-135	08.11.19 15.49	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-010	Date Collected:	08.06.19 09.22	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.09.19 14.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 14.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.09.19 14.11	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.09.19 14.11	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-011	Date Collected:	08.06.19 09.28	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**357**	5.00	mg/kg	08.08.19 19.07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 16.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 16.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 16.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 16.27	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 16.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	08.11.19 16.27	
o-Terphenyl	84-15-1	115	%	70-135	08.11.19 16.27	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-011	Date Collected:	08.06.19 09.28	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.09.19 14.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 14.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.09.19 14.32	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.09.19 14.32	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-012	Date Collected:	08.06.19 09.38	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6550**	49.9	mg/kg	08.08.19 18.56		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 16.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 16.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 16.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 16.46	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 16.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	08.11.19 16.46	
o-Terphenyl	84-15-1	89	%	70-135	08.11.19 16.46	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-012	Date Collected:	08.06.19 09.38	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.09.19 14.52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.09.19 14.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.09.19 14.52	
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.09.19 14.52	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-013	Date Collected:	08.06.19 09.45	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1630**	25.0	mg/kg	08.08.19 19.01		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 17.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 17.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 17.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 17.05	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 17.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 17.05	
o-Terphenyl	84-15-1	94	%	70-135	08.11.19 17.05	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-013	Date Collected:	08.06.19 09.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.09.19 15.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.09.19 15.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.09.19 15.12	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.09.19 15.12	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-014	Date Collected:	08.06.19 09.51	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4520**	24.8	mg/kg	08.08.19 19.24		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 17.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 17.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 17.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 17.23	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 17.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.11.19 17.23	
o-Terphenyl	84-15-1	96	%	70-135	08.11.19 17.23	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-014	Date Collected:	08.06.19 09.51	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.09.19 15.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 15.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.09.19 15.32	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.09.19 15.32	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-015	Date Collected:	08.06.19 09.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2770**	25.0	mg/kg	08.08.19 19.30		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 17.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 17.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 17.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 17.42	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 17.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 17.42	
o-Terphenyl	84-15-1	94	%	70-135	08.11.19 17.42	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-015	Date Collected:	08.06.19 09.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.08.19 12.00	Basis:	Wet Weight
Seq Number:	3098254			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.09.19 15.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.19 15.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.09.19 15.52	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.09.19 15.52	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-016	Date Collected:	08.06.19 10.05	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2090**	25.1	mg/kg	08.08.19 19.47		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 18.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 18.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 18.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 18.01	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 18.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.11.19 18.01	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 18.01	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-016	Date Collected:	08.06.19 10.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.19 06.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 06.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	08.13.19 06.26	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.13.19 06.26	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-017	Date Collected:	08.06.19 10.19	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5980**	50.5	mg/kg	08.08.19 19.52		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 18.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 18.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 18.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 18.20	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 18.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 18.20	
o-Terphenyl	84-15-1	94	%	70-135	08.11.19 18.20	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-017	Date Collected:	08.06.19 10.19	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 06.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 06.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.13.19 06.46	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.13.19 06.46	

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JRU DI #2 193H

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-018	Date Collected:	08.06.19 10.24	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4680**	25.0	mg/kg	08.08.19 19.58		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 18.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 18.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 18.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 18.39	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.11.19 18.39	
o-Terphenyl	84-15-1	102	%	70-135	08.11.19 18.39	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-018	Date Collected:	08.06.19 10.24	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.19 07.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 07.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.13.19 07.06	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.13.19 07.06	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-019	Date Collected:	08.06.19 10.29	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1620**	25.0	mg/kg	08.08.19 20.04		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 18.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 18.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 18.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 18.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 18.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 18.58	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 18.58	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-019	Date Collected:	08.06.19 10.29	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 07.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 07.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.13.19 07.26	
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.13.19 07.26	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-020	Date Collected:	08.06.19 10.33	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3980**	25.3	mg/kg	08.08.19 20.09		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 13.00	Basis:	Wet Weight
Seq Number:	3098137			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	08.11.19 19.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.11.19 19.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.11.19 19.17	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.11.19 19.17	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.11.19 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.11.19 19.17	
o-Terphenyl	84-15-1	102	%	70-135	08.11.19 19.17	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-020	Date Collected:	08.06.19 10.33	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 07.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 07.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.13.19 07.47	
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.13.19 07.47	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-021	Date Collected:	08.06.19 10.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**893**	4.98	mg/kg	08.08.19 20.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 20.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 20.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 20.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 20.51	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 20.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.11.19 20.51	
o-Terphenyl	84-15-1	98	%	70-135	08.11.19 20.51	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-021	Date Collected:	08.06.19 10.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 08.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 08.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.13.19 08.07	
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.13.19 08.07	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-022	Date Collected:	08.06.19 10.57	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 16.00	Basis:	Wet Weight
Seq Number:	3097995			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2570**	25.0	mg/kg	08.08.19 20.20		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**46.8**	14.9	mg/kg	08.11.19 21.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.11.19 21.47	U	1
Total TPH	PHC635	**46.8**	14.9	mg/kg	08.11.19 21.47		1
Total GRO-DRO	PHC628	**46.8**	14.9	mg/kg	08.11.19 21.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.11.19 21.47	
o-Terphenyl	84-15-1	99	%	70-135	08.11.19 21.47	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS26**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-022	Date Collected:	08.06.19 10.57	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 08.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 08.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.13.19 08.27	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.13.19 08.27	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-023	Date Collected:	08.06.19 11.01	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.09.19 08.30	Basis:	Wet Weight
Seq Number:	3098078			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2340**	24.8	mg/kg	08.09.19 09.38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 22.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	**19.2**	15.0	mg/kg	08.11.19 22.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 22.06	U	1
Total TPH	PHC635	**19.2**	15.0	mg/kg	08.11.19 22.06		1
Total GRO-DRO	PHC628	**19.2**	15.0	mg/kg	08.11.19 22.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.11.19 22.06	
o-Terphenyl	84-15-1	98	%	70-135	08.11.19 22.06	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS27**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-023	Date Collected:	08.06.19 11.01	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.19 08.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 08.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.13.19 08.47	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.13.19 08.47	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-024	Date Collected:	08.06.19 11.05	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.00	Basis:	Wet Weight
Seq Number:	3097992			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**871**	5.00	mg/kg	08.08.19 20.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 22.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 22.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 22.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 22.25	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 22.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.11.19 22.25	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 22.25	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS28**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-024	Date Collected:	08.06.19 11.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.13.19 09.07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.13.19 09.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.13.19 09.07	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.13.19 09.07	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS29**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-025	Date Collected:	08.06.19 11.09	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1230**	5.00	mg/kg	08.09.19 05.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 22.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 22.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 22.44	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 22.44	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 22.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	08.11.19 22.44	
o-Terphenyl	84-15-1	90	%	70-135	08.11.19 22.44	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS29**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-025	Date Collected:	08.06.19 11.09	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.19 09.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 09.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.13.19 09.27	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.13.19 09.27	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS30**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-026	Date Collected:	08.06.19 11.12	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**742**	5.03	mg/kg	08.09.19 06.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 23.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 23.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 23.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 23.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 23.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	08.11.19 23.02	
o-Terphenyl	84-15-1	97	%	70-135	08.11.19 23.02	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS30**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-026	Date Collected:	08.06.19 11.12	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.19 10.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 10.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.13.19 10.46	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.13.19 10.46	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS31**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-027	Date Collected:	08.06.19 12.09	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**206**	5.05	mg/kg	08.09.19 06.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.11.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.11.19 23.21	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.11.19 23.21	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.11.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.11.19 23.21	
o-Terphenyl	84-15-1	96	%	70-135	08.11.19 23.21	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS31**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-027	Date Collected:	08.06.19 12.09	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.13.19 11.06	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.13.19 11.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.13.19 11.06	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.13.19 11.06	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-028	Date Collected:	08.06.19 12.13	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**77.5**	4.98	mg/kg	08.09.19 06.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 23.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 23.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 23.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 23.39	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 23.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.11.19 23.39	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 23.39	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS32**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-028	Date Collected:	08.06.19 12.13	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 11.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 11.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.13.19 11.26	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.13.19 11.26	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-029	Date Collected:	08.06.19 12.16	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**232**	5.04	mg/kg	08.09.19 06.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.11.19 23.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 23.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 23.58	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 23.58	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.11.19 23.58	
o-Terphenyl	84-15-1	92	%	70-135	08.11.19 23.58	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS33**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-029	Date Collected:	08.06.19 12.16	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 11.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 11.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.13.19 11.46	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.13.19 11.46	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS34**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-030	Date Collected:	08.06.19 12.19	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**161**	5.04	mg/kg	08.09.19 06.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 00.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 00.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 00.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 00.17	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 00.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	08.12.19 00.17	
o-Terphenyl	84-15-1	99	%	70-135	08.12.19 00.17	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS34**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-030	Date Collected:	08.06.19 12.19	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 12.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 12.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.13.19 12.06	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.13.19 12.06	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS35**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-031	Date Collected:	08.06.19 12.33	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	4.99	mg/kg	08.09.19 06.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 00.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 00.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 00.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 00.54	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 00.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.12.19 00.54	
o-Terphenyl	84-15-1	92	%	70-135	08.12.19 00.54	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS35**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-031	Date Collected:	08.06.19 12.33	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.19 12.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 12.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.19 12.27	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.13.19 12.27	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS36**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-032	Date Collected:	08.06.19 12.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**124**	4.97	mg/kg	08.09.19 07.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 01.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**23.0**	15.0	mg/kg	08.12.19 01.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 01.13	U	1
Total TPH	PHC635	**23.0**	15.0	mg/kg	08.12.19 01.13		1
Total GRO-DRO	PHC628	**23.0**	15.0	mg/kg	08.12.19 01.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.12.19 01.13	
o-Terphenyl	84-15-1	97	%	70-135	08.12.19 01.13	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS36**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-032	Date Collected:	08.06.19 12.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.19 12.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.19 12.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.19 12.47	
1,4-Difluorobenzene	540-36-3	107	%	70-130	08.13.19 12.47	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS37**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-033	Date Collected:	08.06.19 12.34	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**164**	5.00	mg/kg	08.09.19 07.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 01.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.12.19 01.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.12.19 01.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.12.19 01.32	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.12.19 01.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.12.19 01.32	
o-Terphenyl	84-15-1	95	%	70-135	08.12.19 01.32	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS37**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-033	Date Collected:	08.06.19 12.34	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 13.07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 13.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.13.19 13.07	
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.13.19 13.07	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS38**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-034	Date Collected:	08.06.19 12.37	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**145**	5.02	mg/kg	08.09.19 07.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 01.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 01.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 01.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 01.50	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 01.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.12.19 01.50	
o-Terphenyl	84-15-1	95	%	70-135	08.12.19 01.50	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS38**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-034	Date Collected:	08.06.19 12.37	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.19 13.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.19 13.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.13.19 13.27	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.13.19 13.27	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS39**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-035	Date Collected:	08.06.19 12.41	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**176**	5.05	mg/kg	08.09.19 07.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 02.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 02.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 02.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 02.09	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 02.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.12.19 02.09	
o-Terphenyl	84-15-1	94	%	70-135	08.12.19 02.09	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS39**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-035	Date Collected:	08.06.19 12.41	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.00	Basis:	Wet Weight
Seq Number:	3098390			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.13.19 13.47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.13.19 13.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.13.19 13.47	
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.13.19 13.47	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS40**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-036	Date Collected:	08.06.19 12.44	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**201**	4.99	mg/kg	08.09.19 07.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 02.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 02.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 02.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 02.28	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 02.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.12.19 02.28	
o-Terphenyl	84-15-1	93	%	70-135	08.12.19 02.28	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.11.19 06.49	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.19 06.49	U	1

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS41**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-037	Date Collected:	08.07.19 12.45	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3430**	49.6	mg/kg	08.09.19 07.45		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 02.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.12.19 02.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	08.12.19 02.46	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.12.19 02.46	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	08.12.19 02.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.12.19 02.46	
o-Terphenyl	84-15-1	90	%	70-135	08.12.19 02.46	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS41**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-037	Date Collected:	08.07.19 12.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.11.19 07.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 07.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.11.19 07.00	
1,4-Difluorobenzene	540-36-3	106	%	70-130	08.11.19 07.00	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS42**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-038	Date Collected:	08.07.19 13.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**214**	5.00	mg/kg	08.09.19 08.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 03.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 03.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 03.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 03.05	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 03.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.12.19 03.05	
o-Terphenyl	84-15-1	98	%	70-135	08.12.19 03.05	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS42**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-038	Date Collected:	08.07.19 13.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 07.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 07.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.11.19 07.20	
4-Bromofluorobenzene	460-00-4	108	%	70-130	08.11.19 07.20	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS43**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-039	Date Collected:	08.07.19 13.42	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**261**	5.02	mg/kg	08.09.19 09.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 03.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 03.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 03.24	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 03.24	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 03.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.12.19 03.24	
o-Terphenyl	84-15-1	93	%	70-135	08.12.19 03.24	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS43**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-039	Date Collected:	08.07.19 13.42	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.11.19 07.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 07.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.11.19 07.40	
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.11.19 07.40	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS44**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-040	Date Collected:	08.07.19 12.47	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**334**	4.97	mg/kg	08.09.19 09.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 14.00	Basis:	Wet Weight
Seq Number:	3098139			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	08.12.19 03.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.12.19 03.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.12.19 03.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.12.19 03.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.12.19 03.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.12.19 03.43	
o-Terphenyl	84-15-1	83	%	70-135	08.12.19 03.43	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS44**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-040	Date Collected:	08.07.19 12.47	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.11.19 08.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.19 08.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	08.11.19 08.00	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.11.19 08.00	

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LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS45**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-041	Date Collected:	08.06.19 13.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.08.19 15.40	Basis:	Wet Weight
Seq Number:	3098041			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**318**	5.05	mg/kg	08.09.19 09.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.09.19 15.00	Basis:	Wet Weight
Seq Number:	3098133			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	08.11.19 08.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.11.19 08.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	08.11.19 08.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.11.19 08.03	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	08.11.19 08.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.11.19 08.03	
o-Terphenyl	84-15-1	93	%	70-135	08.11.19 08.03	

Certificate of Analytical Results 633355

LT Environmental, Inc., Arvada, CO

JRU DI #2 193H

Sample Id:	**FS45**	Matrix:	Soil	Date Received:	08.07.19 14.07
Lab Sample Id:	633355-041	Date Collected:	08.06.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	ALG	Date Prep:	08.09.19 10.30	Basis:	Wet Weight
Seq Number:	3098311			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.19 08.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.19 08.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.11.19 08.20	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.11.19 08.20	

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 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097992 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683833-1-BLK LCS Sample Id: 7683833-1-BKS LCSD Sample Id: 7683833-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	252	101	251	100	90-110	0	20	mg/kg	08.08.19 17:34	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098041 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683837-1-BLK LCS Sample Id: 7683837-1-BKS LCSD Sample Id: 7683837-1-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	249	100	90-110	0	20	mg/kg	08.09.19 05:45	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097995 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683838-1-BLK LCS Sample Id: 7683838-1-BKS LCSD Sample Id: 7683838-1-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	235	94	90-110	5	20	mg/kg	08.08.19 17:37	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098078 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683868-1-BLK LCS Sample Id: 7683868-1-BKS LCSD Sample Id: 7683868-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	235	94	236	94	90-110	0	20	mg/kg	08.09.19 08:58	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097992 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633270-002 MS Sample Id: 633270-002 S MSD Sample Id: 633270-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	140	252	395	101	395	101	90-110	0	20	mg/kg	08.08.19 17:53	

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 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097992 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633270-012 MS Sample Id: 633270-012 S MSD Sample Id: 633270-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	145	249	404	104	403	104	90-110	0	20	mg/kg	08.08.19 19:21	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098041 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633355-025 MS Sample Id: 633355-025 S MSD Sample Id: 633355-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1230	250	1450	88	1450	88	90-110	0	20	mg/kg	08.09.19 06:03	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098041 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633355-035 MS Sample Id: 633355-035 S MSD Sample Id: 633355-035 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	176	253	437	103	432	101	90-110	1	20	mg/kg	08.09.19 07:27	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097995 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633355-003 MS Sample Id: 633355-003 S MSD Sample Id: 633355-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	566	249	804	96	783	87	90-110	3	20	mg/kg	08.08.19 17:54	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3097995 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633355-011 MS Sample Id: 633355-011 S MSD Sample Id: 633355-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	357	250	608	100	596	96	90-110	2	20	mg/kg	08.08.19 19:13	

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

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

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

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

QC Summary 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098078 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633489-001 MS Sample Id: 633489-001 S MSD Sample Id: 633489-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.2	250	287	101	309	110	90-110	7	20	mg/kg	08.09.19 10:47	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098078 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633489-015 MS Sample Id: 633489-015 S MSD Sample Id: 633489-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	217	248	425	84	428	85	90-110	1	20	mg/kg	08.09.19 09:15	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098137 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683940-1-BLK LCS Sample Id: 7683940-1-BKS LCSD Sample Id: 7683940-1-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	1140	114	1170	117	70-135	3	20	mg/kg	08.11.19 11:43	
Diesel Range Organics (DRO)	<8.13	1000	1050	105	1080	108	70-135	3	20	mg/kg	08.11.19 11:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		119		120		70-135	%	08.11.19 11:43
o-Terphenyl	94		103		105		70-135	%	08.11.19 11:43

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098139 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683941-1-BLK LCS Sample Id: 7683941-1-BKS LCSD Sample Id: 7683941-1-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	1190	119	1180	118	70-135	1	20	mg/kg	08.11.19 20:14	
Diesel Range Organics (DRO)	<8.13	1000	1120	112	1100	110	70-135	2	20	mg/kg	08.11.19 20:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		127		70-135	%	08.11.19 20:14
o-Terphenyl	97		105		111		70-135	%	08.11.19 20:14

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

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

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

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

QC Summary 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098133 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683942-1-BLK LCS Sample Id: 7683942-1-BKS LCSD Sample Id: 7683942-1-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	1100	110	1130	113	70-135	3	20	mg/kg	08.11.19 02:06	
Diesel Range Organics (DRO)	<8.13	1000	993	99	1030	103	70-135	4	20	mg/kg	08.11.19 02:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		120		124		70-135	%	08.11.19 02:06
o-Terphenyl	91		98		107		70-135	%	08.11.19 02:06

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098137 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633355-001 MS Sample Id: 633355-001 S MSD Sample Id: 633355-001 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	1030	103	1040	104	70-135	1	20	mg/kg	08.11.19 12:39	
Diesel Range Organics (DRO)	198	997	1330	114	1350	115	70-135	1	20	mg/kg	08.11.19 12:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		114		70-135	%	08.11.19 12:39
o-Terphenyl	107		106		70-135	%	08.11.19 12:39

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098139 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633355-021 MS Sample Id: 633355-021 S MSD Sample Id: 633355-021 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)	<7.98	997	1060	106	1070	107	70-135	1	20	mg/kg	08.11.19 21:10	
Diesel Range Organics (DRO)	9.59	997	977	97	984	98	70-135	1	20	mg/kg	08.11.19 21:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		118		70-135	%	08.11.19 21:10
o-Terphenyl	103		105		70-135	%	08.11.19 21:10

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

QC Summary 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098133 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633251-001 MS Sample Id: 633251-001 S MSD Sample Id: 633251-001 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	1190	119	1150	115	70-135	3	20	mg/kg	08.11.19 03:02	
Diesel Range Organics (DRO)	<8.10	997	1150	115	1170	117	70-135	2	20	mg/kg	08.11.19 03:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		126		70-135	%	08.11.19 03:02
o-Terphenyl	116		118		70-135	%	08.11.19 03:02

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098254 Matrix: Solid Date Prep: 08.08.19
MB Sample Id: 7683789-1-BLK LCS Sample Id: 7683789-1-BKS LCSD Sample Id: 7683789-1-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	0.0911	91	0.0735	74	70-130	21	35	mg/kg	08.09.19 06:52	
Toluene	<0.000456	0.100	0.0860	86	0.0708	71	70-130	19	35	mg/kg	08.09.19 06:52	
Ethylbenzene	<0.00200	0.100	0.0871	87	0.0791	79	70-130	10	35	mg/kg	08.09.19 06:52	
m,p-Xylenes	<0.00101	0.200	0.174	87	0.153	77	70-130	13	35	mg/kg	08.09.19 06:52	
o-Xylene	<0.000344	0.100	0.0906	91	0.0816	82	70-130	10	35	mg/kg	08.09.19 06:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		103		70-130	%	08.09.19 06:52
4-Bromofluorobenzene	108		114		112		70-130	%	08.09.19 06:52

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098390 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683879-1-BLK LCS Sample Id: 7683879-1-BKS LCSD Sample Id: 7683879-1-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	0.0978	98	0.104	104	70-130	6	35	mg/kg	08.13.19 04:26	
Toluene	<0.000456	0.100	0.0909	91	0.0984	98	70-130	8	35	mg/kg	08.13.19 04:26	
Ethylbenzene	<0.00200	0.100	0.0918	92	0.0993	99	70-130	8	35	mg/kg	08.13.19 04:26	
m,p-Xylenes	<0.00101	0.200	0.183	92	0.199	100	70-130	8	35	mg/kg	08.13.19 04:26	
o-Xylene	<0.000344	0.100	0.0951	95	0.104	104	70-130	9	35	mg/kg	08.13.19 04:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		101		70-130	%	08.13.19 04:26
4-Bromofluorobenzene	99		105		108		70-130	%	08.13.19 04:26

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

QC Summary 633355

LT Environmental, Inc.

JRU DI #2 193H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098311 Matrix: Solid Date Prep: 08.09.19
MB Sample Id: 7683893-1-BLK LCS Sample Id: 7683893-1-BKS LCSD Sample Id: 7683893-1-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	0.0884	88	0.103	103	70-130	15	35	mg/kg	08.11.19 04:40	
Toluene	0.000620	0.100	0.0835	84	0.0957	96	70-130	14	35	mg/kg	08.11.19 04:40	
Ethylbenzene	<0.00200	0.100	0.0836	84	0.0951	95	70-130	13	35	mg/kg	08.11.19 04:40	
m,p-Xylenes	<0.00101	0.200	0.166	83	0.189	95	70-130	13	35	mg/kg	08.11.19 04:40	
o-Xylene	<0.000344	0.100	0.0876	88	0.100	100	70-130	13	35	mg/kg	08.11.19 04:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		99		101		70-130	%	08.11.19 04:40
4-Bromofluorobenzene	107		103		109		70-130	%	08.11.19 04:40

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098254 Matrix: Soil Date Prep: 08.08.19
Parent Sample Id: 633251-001 MS Sample Id: 633251-001 S MSD Sample Id: 633251-001 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	0.0731	74	0.0691	69	70-130	6	35	mg/kg	08.09.19 07:32	X
Toluene	<0.00199	0.0994	0.0704	71	0.0678	68	70-130	4	35	mg/kg	08.09.19 07:32	X
Ethylbenzene	0.00266	0.0994	0.0786	76	0.0759	74	70-130	3	35	mg/kg	08.09.19 07:32	
m,p-Xylenes	<0.00101	0.199	0.152	76	0.148	74	70-130	3	35	mg/kg	08.09.19 07:32	
o-Xylene	0.00193	0.0994	0.0811	80	0.0807	79	70-130	0	35	mg/kg	08.09.19 07:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	08.09.19 07:32
4-Bromofluorobenzene	112		115		70-130	%	08.09.19 07:32

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3098390 Matrix: Soil Date Prep: 08.09.19
Parent Sample Id: 633355-016 MS Sample Id: 633355-016 S MSD Sample Id: 633355-016 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	0.0794	80	0.0704	70	70-130	12	35	mg/kg	08.13.19 05:06	
Toluene	<0.00199	0.0996	0.0715	72	0.0653	65	70-130	9	35	mg/kg	08.13.19 05:06	X
Ethylbenzene	<0.00199	0.0996	0.0694	70	0.0650	65	70-130	7	35	mg/kg	08.13.19 05:06	X
m,p-Xylenes	<0.00101	0.199	0.137	69	0.130	65	70-130	5	35	mg/kg	08.13.19 05:06	X
o-Xylene	<0.00199	0.0996	0.0726	73	0.0702	70	70-130	3	35	mg/kg	08.13.19 05:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	08.13.19 05:06
4-Bromofluorobenzene	109		115		70-130	%	08.13.19 05:06

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

QC Summary 633355

LT Environmental, Inc.

JRU DI #2 193H

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

Seq Number: 3098311 Matrix: Soil Date Prep: 08.09.19

Parent Sample Id: 633355-036 MS Sample Id: 633355-036 S MSD Sample Id: 633355-036 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	0.0610	61	0.0756	76	70-130	21	35	mg/kg	08.11.19 05:20	X
Toluene	<0.00199	0.0996	0.0536	54	0.0585	59	70-130	9	35	mg/kg	08.11.19 05:20	X
Ethylbenzene	<0.00199	0.0996	0.0534	54	0.0636	64	70-130	17	35	mg/kg	08.11.19 05:20	X
m,p-Xylenes	<0.00398	0.199	0.0825	41	0.0700	35	70-130	16	35	mg/kg	08.11.19 05:20	X
o-Xylene	<0.00199	0.0996	0.0605	61	0.0713	72	70-130	16	35	mg/kg	08.11.19 05:20	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	08.11.19 05:20
4-Bromofluorobenzene	114		109		70-130	%	08.11.19 05:20

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

Chain of Custody

Work Order No: 633355

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:	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 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU D1#2 193H	Turn Around	
Project Number:	012919009	Routine ☐	
P.O. Number:	2RP-5194	Rush: 3 days	
Sampler's Name:	Fatima Smith	Due Date: 8/15/19	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.4	Thermometer ID	TH400
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~~ 11

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW01	S	08/06/19	1407	0-4'	1	X	X	X
SW02			1410					
SW03			1415					
SW04			1419					
SW05			1443					
SW06			1448					
SW07			1452					
SW08			1456	↓				
FS14			0916	4'				
FS15	↓	↓	0922	↓	↓	↓	↓	↓

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fat Om		8/7/19 1407	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 633355

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:	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 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU D1 #2 193H	Turn Around	
Project Number:	012919009	Routine ☐	
P.O. Number:	2RP-5194	Rush: 3 days	
Sampler's Name:	Fatima Smith	Due Date: 8/15/19	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS16	S	08/06/19	0928	4'	1	X	X	X
FS17			0938					
FS18			0945					
FS19			0951					
FS20			0955					
FS21			1005					
FS22			1019					
FS23			1024					
FS24			1029					
FS25			1033					

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fatima		8/7/19 14:07	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 633355

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:	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 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU D1 #2 193H	Turn Around	
Project Number:	012919009	Routine ☐	
P.O. Number:	2RP-5194	Rush: 3 days	
Sampler's Name:	Fatima Smith	Due Date: 8/15/19	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS26	S	08/06/19	1040	4'	1	X	X	X	
FS27			1057						
FS28			1101						
FS29			1105						
FS30			1109						
FS31			1112						
FS32			1209						
FS33			1213						
FS34			1216						
FS35			1219						

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fatima		8/7/19 14:07	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 633355

www.xenco.com Page 4 of 5

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 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU DI #2 193H	Turn Around	
Project Number:	012919009	Routine ☐	
P.O. Number:	2RP-5194	Rush: 3days	
Sampler's Name:	Fatima Smith	Due Date: 8/15/19	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS36	S	08/06/19	1223	4'	1	X	X	X
FS37			1230					
FS38			1234					
FS39			1237					
FS40			1241					
FS41			1244					
FS42		08/07/19	1245					
FS43		08/06/19	1340					
FS44		08/06/19	1342					
FS45		08/07/19	1247					

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8/7/19 14:07	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 633355

www.xenco.com Page 5 of 5

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 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	JRU D1 #2 193H	Turn Around	
Project Number:	012919009	Routine ☐	
P.O. Number:	2RP-5194	Rush: 3 days	
Sampler's Name:	Fatima Smith	Due Date: 8/15/19	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS46	S	08/06/19	1350	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8/7/19 14:07	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Martha Castro
Delivery Priority:
Air Bill No.: 7759305855567

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
633355-001	S	SW01	08/06/19 14:07	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-001	S	SW01	08/06/19 14:07	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-001	S	SW01	08/06/19 14:07	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-002	S	SW02	08/06/19 14:10	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-002	S	SW02	08/06/19 14:10	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-002	S	SW02	08/06/19 14:10	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-003	S	SW03	08/06/19 14:15	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-003	S	SW03	08/06/19 14:15	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-003	S	SW03	08/06/19 14:15	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-004	S	SW04	08/06/19 14:19	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-004	S	SW04	08/06/19 14:19	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-004	S	SW04	08/06/19 14:19	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-005	S	SW05	08/06/19 14:43	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-005	S	SW05	08/06/19 14:43	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-005	S	SW05	08/06/19 14:43	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-006	S	SW06	08/06/19 14:48	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-006	S	SW06	08/06/19 14:48	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-006	S	SW06	08/06/19 14:48	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-007	S	SW07	08/06/19 14:52	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-007	S	SW07	08/06/19 14:52	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-007	S	SW07	08/06/19 14:52	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-008	S	SW08	08/06/19 14:56	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-008	S	SW08	08/06/19 14:56	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-008	S	SW08	08/06/19 14:56	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-009	S	FS14	08/06/19 09:16	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
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.: 7759305855567
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
633355-009	S	FS14	08/06/19 09:16	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-009	S	FS14	08/06/19 09:16	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-010	S	FS15	08/06/19 09:22	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-010	S	FS15	08/06/19 09:22	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-010	S	FS15	08/06/19 09:22	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-011	S	FS16	08/06/19 09:28	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-011	S	FS16	08/06/19 09:28	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-011	S	FS16	08/06/19 09:28	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-012	S	FS17	08/06/19 09:38	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-012	S	FS17	08/06/19 09:38	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-012	S	FS17	08/06/19 09:38	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-013	S	FS18	08/06/19 09:45	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-013	S	FS18	08/06/19 09:45	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-013	S	FS18	08/06/19 09:45	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-014	S	FS19	08/06/19 09:51	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-014	S	FS19	08/06/19 09:51	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-014	S	FS19	08/06/19 09:51	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-015	S	FS20	08/06/19 09:55	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-015	S	FS20	08/06/19 09:55	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-015	S	FS20	08/06/19 09:55	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-016	S	FS21	08/06/19 10:05	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-016	S	FS21	08/06/19 10:05	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-016	S	FS21	08/06/19 10:05	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-017	S	FS22	08/06/19 10:19	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-017	S	FS22	08/06/19 10:19	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
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.: 7759305855567
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
633355-017	S	FS22	08/06/19 10:19	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-018	S	FS23	08/06/19 10:24	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-018	S	FS23	08/06/19 10:24	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-018	S	FS23	08/06/19 10:24	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-019	S	FS24	08/06/19 10:29	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-019	S	FS24	08/06/19 10:29	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-019	S	FS24	08/06/19 10:29	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-020	S	FS25	08/06/19 10:33	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-020	S	FS25	08/06/19 10:33	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-020	S	FS25	08/06/19 10:33	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-021	S	FS26	08/06/19 10:40	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-021	S	FS26	08/06/19 10:40	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-021	S	FS26	08/06/19 10:40	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-022	S	FS27	08/06/19 10:57	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-022	S	FS27	08/06/19 10:57	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-022	S	FS27	08/06/19 10:57	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-023	S	FS28	08/06/19 11:01	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-023	S	FS28	08/06/19 11:01	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-023	S	FS28	08/06/19 11:01	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-024	S	FS29	08/06/19 11:05	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-024	S	FS29	08/06/19 11:05	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-024	S	FS29	08/06/19 11:05	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-025	S	FS30	08/06/19 11:09	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-025	S	FS30	08/06/19 11:09	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-025	S	FS30	08/06/19 11:09	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By:

Received By:

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Martha Castro
Delivery Priority:
Air Bill No.: 7759305855567

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
633355-026	S	FS31	08/06/19 11:12	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-026	S	FS31	08/06/19 11:12	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-026	S	FS31	08/06/19 11:12	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-027	S	FS32	08/06/19 12:09	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-027	S	FS32	08/06/19 12:09	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-027	S	FS32	08/06/19 12:09	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-028	S	FS33	08/06/19 12:13	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-028	S	FS33	08/06/19 12:13	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-028	S	FS33	08/06/19 12:13	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-029	S	FS34	08/06/19 12:16	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-029	S	FS34	08/06/19 12:16	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-029	S	FS34	08/06/19 12:16	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-030	S	FS35	08/06/19 12:19	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-030	S	FS35	08/06/19 12:19	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-030	S	FS35	08/06/19 12:19	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-031	S	FS36	08/06/19 12:33	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-031	S	FS36	08/06/19 12:33	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-031	S	FS36	08/06/19 12:33	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-032	S	FS37	08/06/19 12:30	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-032	S	FS37	08/06/19 12:30	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-032	S	FS37	08/06/19 12:30	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-033	S	FS38	08/06/19 12:34	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-033	S	FS38	08/06/19 12:34	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-033	S	FS38	08/06/19 12:34	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-034	S	FS39	08/06/19 12:37	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Date Relinquished:

Date Received:

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Martha Castro
Delivery Priority:
Air Bill No.: 7759305855567

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
633355-034	S	FS39	08/06/19 12:37	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-034	S	FS39	08/06/19 12:37	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-035	S	FS40	08/06/19 12:41	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-035	S	FS40	08/06/19 12:41	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-035	S	FS40	08/06/19 12:41	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-036	S	FS41	08/06/19 12:44	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-036	S	FS41	08/06/19 12:44	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-036	S	FS41	08/06/19 12:44	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-037	S	FS42	08/07/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/21/19	JKR	GRO-DRO PHCC10C28 PI	
633355-037	S	FS42	08/07/19 12:45	SW8021B	BTEX by EPA 8021B	08/09/19	08/21/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-037	S	FS42	08/07/19 12:45	E300_CL	Chloride by EPA 300	08/09/19	02/03/20	JKR	CL	
633355-038	S	FS43	08/07/19 13:40	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/21/19	JKR	GRO-DRO PHCC10C28 PI	
633355-038	S	FS43	08/07/19 13:40	SW8021B	BTEX by EPA 8021B	08/09/19	08/21/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-038	S	FS43	08/07/19 13:40	E300_CL	Chloride by EPA 300	08/09/19	02/03/20	JKR	CL	
633355-039	S	FS44	08/07/19 13:42	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/21/19	JKR	GRO-DRO PHCC10C28 PI	
633355-039	S	FS44	08/07/19 13:42	SW8021B	BTEX by EPA 8021B	08/09/19	08/21/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-039	S	FS44	08/07/19 13:42	E300_CL	Chloride by EPA 300	08/09/19	02/03/20	JKR	CL	
633355-040	S	FS45	08/07/19 12:47	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/21/19	JKR	GRO-DRO PHCC10C28 PI	
633355-040	S	FS45	08/07/19 12:47	E300_CL	Chloride by EPA 300	08/09/19	02/03/20	JKR	CL	
633355-040	S	FS45	08/07/19 12:47	SW8021B	BTEX by EPA 8021B	08/09/19	08/21/19	JKR	BR4FBZ BZ BZME EBZ X	
633355-041	S	FS46	08/06/19 13:50	E300_CL	Chloride by EPA 300	08/09/19	02/02/20	JKR	CL	
633355-041	S	FS46	08/06/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	08/09/19	08/20/19	JKR	GRO-DRO PHCC10C28 PI	
633355-041	S	FS46	08/06/19 13:50	SW8021B	BTEX by EPA 8021B	08/09/19	08/20/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Martha Castro

Cooler Temperature:

Brianna Teel

Inter-Office Shipment

IOS Number **45797**

Date/Time: 08/07/19 15:39
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Martha Castro
Delivery Priority:
Air Bill No.: 7759305855567

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

08/07/2019

08/08/2019 11:05

0.5

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 45797

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Martha Castro **Date Sent:** 08/07/2019 03:39 PM

Received By: Brianna Teel **Date Received:** 08/08/2019 11:05 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Brianna Teel Date: 08/08/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/07/2019 02:07:00 PM

Work Order #: 633355

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

Temperature Measuring device used : T NM 007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.4	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**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**	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: Martha Castro Date: 08/07/2019

Checklist reviewed by: Jessica Kramer Date: 08/09/2019

Analytical Report 634135

for

LT Environmental, Inc.

Project Manager: Dan Moir

JRU D1#2 193H

012919009

29-AUG-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)

29-AUG-19

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

Reference: XENCO Report No(s): **634135**
JRU D1#2 193H
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) 634135. 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. 634135 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

Sample Cross Reference 634135

LT Environmental, Inc., Arvada, CO

JRU D1#2 193H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW09	S	08-14-19 14:46	0 - 4 ft	634135-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: JRU D1#2 193H

Project ID: *012919009*
Work Order Number(s): *634135*

Report Date: *29-AUG-19*
Date Received: *08/15/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099144 BTEX by EPA 8021B

Lab Sample ID 634135-001 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: 634135-001.

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 634135

LT Environmental, Inc., Arvada, CO

Project Name: JRU D1#2 193H

Project Id: 012919009
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu Aug-15-19 08:45 am
Report Date: 29-AUG-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	634135-001					
	Field Id:	SW09					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	Aug-14-19 14:46					
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Aug-16-19 16:00					
	Analyzed:	Aug-17-19 18:28					
	Units/RL:	mg/kg	RL				
Benzene		<0.00199	0.00199				
Toluene		<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398				
o-Xylene		<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199				
Total BTEX		<0.00199	0.00199				
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Aug-16-19 13:00					
	Analyzed:	Aug-16-19 22:58					
	Units/RL:	mg/kg	RL				
Chloride		1440	5.04				
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Aug-16-19 09:00					
	Analyzed:	Aug-16-19 21:14					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<25.0	25.0				
Diesel Range Organics (DRO)		29.7	25.0				
Motor Oil Range Hydrocarbons (MRO)		<25.0	25.0				
Total TPH		29.7	25.0				
Total GRO-DRO		29.7	25.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 634135

LT Environmental, Inc., Arvada, CO

JRU D1#2 193H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	08.15.19 08.45
Lab Sample Id:	634135-001	Date Collected:	08.14.19 14.46	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.16.19 13.00	Basis:	Wet Weight
Seq Number:	3098839			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1440**	5.04	mg/kg	08.16.19 22.58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.16.19 09.00	Basis:	Wet Weight
Seq Number:	3098908			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<25.0	25.0	mg/kg	08.16.19 21.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**29.7**	25.0	mg/kg	08.16.19 21.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<25.0	25.0	mg/kg	08.16.19 21.14	U	1
Total TPH	PHC635	**29.7**	25.0	mg/kg	08.16.19 21.14		1
Total GRO-DRO	PHC628	**29.7**	25.0	mg/kg	08.16.19 21.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.16.19 21.14	
o-Terphenyl	84-15-1	84	%	70-135	08.16.19 21.14	

Certificate of Analytical Results 634135

LT Environmental, Inc., Arvada, CO

JRU D1#2 193H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	08.15.19 08.45
Lab Sample Id:	634135-001	Date Collected:	08.14.19 14.46	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	AMB	Date Prep:	08.16.19 16.00	Basis:	Wet Weight
Seq Number:	3099144			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.17.19 18.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.17.19 18.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.17.19 18.28	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.17.19 18.28	

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 634135

LT Environmental, Inc.

JRU D1#2 193H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098839 Matrix: Solid Date Prep: 08.16.19
MB Sample Id: 7684396-1-BLK LCS Sample Id: 7684396-1-BKS LCSD Sample Id: 7684396-1-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	255	102	254	102	90-110	0	20	mg/kg	08.16.19 20:01	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098839 Matrix: Soil Date Prep: 08.16.19
Parent Sample Id: 634142-008 MS Sample Id: 634142-008 S MSD Sample Id: 634142-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.44	248	268	106	268	106	90-110	0	20	mg/kg	08.16.19 20:20	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3098839 Matrix: Soil Date Prep: 08.16.19
Parent Sample Id: 634142-018 MS Sample Id: 634142-018 S MSD Sample Id: 634142-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.3	250	270	103	269	103	90-110	0	20	mg/kg	08.16.19 21:49	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098908 Matrix: Solid Date Prep: 08.16.19
MB Sample Id: 7684345-1-BLK LCS Sample Id: 7684345-1-BKS LCSD Sample Id: 7684345-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	983	98	1010	101	70-135	3	20	mg/kg	08.16.19 20:35	
Diesel Range Organics (DRO)	<25.0	1000	932	93	954	95	70-135	2	20	mg/kg	08.16.19 20:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		106		110		70-135	%	08.16.19 20:35
o-Terphenyl	89		94		98		70-135	%	08.16.19 20:35

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

QC Summary 634135

LT Environmental, Inc.

JRU D1#2 193H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3098908 Matrix: Soil Date Prep: 08.16.19
Parent Sample Id: 634135-001 MS Sample Id: 634135-001 S MSD Sample Id: 634135-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	987	99	983	99	70-135	0	20	mg/kg	08.16.19 21:33	
Diesel Range Organics (DRO)	29.7	997	941	91	938	91	70-135	0	20	mg/kg	08.16.19 21:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		112		70-135	%	08.16.19 21:33
o-Terphenyl	92		88		70-135	%	08.16.19 21:33

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3099144 Matrix: Solid Date Prep: 08.16.19
MB Sample Id: 7684427-1-BLK LCS Sample Id: 7684427-1-BKS LCSD Sample Id: 7684427-1-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	0.0993	99	0.0910	91	70-130	9	35	mg/kg	08.17.19 14:57	
Toluene	<0.000456	0.100	0.0959	96	0.0959	96	70-130	0	35	mg/kg	08.17.19 14:57	
Ethylbenzene	<0.00200	0.100	0.0953	95	0.0982	98	70-130	3	35	mg/kg	08.17.19 14:57	
m,p-Xylenes	<0.00101	0.200	0.189	95	0.197	99	70-130	4	35	mg/kg	08.17.19 14:57	
o-Xylene	<0.000344	0.100	0.0963	96	0.102	102	70-130	6	35	mg/kg	08.17.19 14:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		101		97		70-130	%	08.17.19 14:57
4-Bromofluorobenzene	101		98		109		70-130	%	08.17.19 14:57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3099144 Matrix: Soil Date Prep: 08.16.19
Parent Sample Id: 634135-001 MS Sample Id: 634135-001 S MSD Sample Id: 634135-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000418	0.0998	0.0745	74	0.0669	67	70-130	11	35	mg/kg	08.17.19 17:09	X
Toluene	<0.000455	0.0998	0.0673	67	0.0588	59	70-130	13	35	mg/kg	08.17.19 17:09	X
Ethylbenzene	<0.00200	0.0998	0.0619	62	0.0506	51	70-130	20	35	mg/kg	08.17.19 17:09	X
m,p-Xylenes	<0.00101	0.200	0.121	61	0.0974	49	70-130	22	35	mg/kg	08.17.19 17:09	X
o-Xylene	<0.00200	0.0998	0.0629	63	0.0507	51	70-130	21	35	mg/kg	08.17.19 17:09	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		70-130	%	08.17.19 17:09
4-Bromofluorobenzene	106		111		70-130	%	08.17.19 17:09

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

Chain of Custody

Work Order No: 634135

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)

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

Work Order Comments

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

Project Name:	JRU D1 #2 193H	Turn Around	
Project Number:	012919009	Routine	☑
P.O. Number:	2RP-5194	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.6	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW02	S	08/14/19	1446	0'-4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fatima Smith	Courtney Pope	8/15/19 08:45			
2				AU 8/15/19		
3						
4						
5						
6						

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **46330**

Date/Time: 08/15/19 11:31
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 775997979470

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
634135-001	S	SW02	08/14/19 14:46	SW8015MOD_NM	TPH by SW8015 Mod	08/21/19	08/28/19	JKR	GRO-DRO PHCC10C28 PI	
634135-001	S	SW02	08/14/19 14:46	SW8021B	BTEX by EPA 8021B	08/21/19	08/28/19	JKR	BR4FBZ BZ BZME EBZ X	
634135-001	S	SW02	08/14/19 14:46	E300_CL	Chloride by EPA 300	08/21/19	02/10/20	JKR	CL	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 08/15/2019

Received By: Brianna Teel

Date Received: 08/16/2019 11:27

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 46330

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 08/15/2019 11:31 AM

Received By: Brianna Teel **Date Received:** 08/16/2019 11:27 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.4	
#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: 08/16/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08/15/2019 08:45:00 AM

Work Order #: 634135

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?	**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: 08/15/2019

Checklist reviewed by: Jessica Kramer Date: 08/20/2019