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	NRM2030234533
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.19297 Longitude - 103.91887
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 442-443	Site Type Tank Battery
Date Release Discovered 10/8/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
B	30	24S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .12	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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: Water dump line plugged with scale causing the flare scrubber to fill with fluid and flow out of the flare stack. Evidence was found indicating a small fire that extinguished itself below the flare. A third party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A small fire occurred at the base of the flare. Fire extinguished itself.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Adrian Baker to 'Venegas, Victoria, EMNRD'; Bartels, Robert; 'Bratcher, Mike, EMNRD'; 'Griswold, Jim, EMNRD'; 'Morgan, Crisha A'; 'CFO_Spill, BLM_NM' on Thursday, October 8, 2020 5:03 PM via 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 Supervisor
Signature:
Date: 10-22-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 10/28/2020

Location:	PLU 442-443	
Spill Date:	10/8/2020	
Area 1		
Approximate Area =	521.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.12	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.12**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 12/11/2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
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: 12/11/2020

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

OCD Only

Received by: Chad Hensley Date: 04/22/2021

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: 04/22/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

WSP USA
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

December 11, 2020

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
PLU 442-443
Incident Number NRM2030234533
Eddy County, New Mexico

To Whom It May Concern:

WSP USA, Inc. (WSP) (formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Poker Lake Unit (PLU) 442-443 (Site) in Unit B, Section 30, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil at the Site. Based on the field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2030234533.

RELEASE BACKGROUND

On October 8, 2020, the flare scrubber filled with fluid, causing a release of approximately 0.12 barrels (bbls) of crude oil through the flare stack which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on October 8, 2020. Then on a Release Notification and Corrective Action Form C-141 (Form C-141) on October 22, 2020 and assigned Incident Number NRM2030234533.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321205103544701, located approximately 0.61 miles northwest of the Site. The groundwater well was most recently measured in January 1998 and has a reported depth to groundwater of 231 feet bgs and a total depth of 452 feet bgs. Ground surface elevation at the groundwater well

location is 3,193 feet above mean sea level (amsl), which is approximately 35 feet higher in elevation than the Site. There are five additional groundwater wells within a 2.5-mile radius of the Site that indicate regional depth to groundwater is greater than 100 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated referenced well records are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 1,020 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES

On November 3, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The impacted area was previously excavated in response to a separate release on May 20, 2020 (NRM2016049766). Approximately 30 cubic yards of impacted soil were removed by WSP prior to this release and was scheduled to be backfilled. WSP personnel collected two preliminary soil samples (SS01 and SS02) within the open release extent. The two preliminary soil samples were collected from a depth of approximately 2.3 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil

samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil sample SS01 and SS02 indicated that TPH-GRO, TPH-DRO and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, excavation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES

On November 19, 2020, WSP personnel returned to the Site to oversee excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

Excavation of impacted soil was completed in the areas surrounding preliminary soil samples SS01 and SS02. Excavation activities were performed using track-mounted backhoe and transport vehicle. Excavation activities occurred on pad surrounding the production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floors of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation measured approximately 308 square feet in area and was completed to depths ranging from approximately 3 to 4 feet bgs. A total of 2 composite floor samples, FS01 and FS02, were collected from the excavation at depths ranging from 3 to 4 feet bgs. Composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths from the ground surface to 4 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The excavation area totaled approximately 308 square feet. A total of approximately 17 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing. The area north of the flare stack will be reseeded and backfilled with material purchased locally and recontour the Site to match pre-existing site conditions.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples indicated that soil samples SS01 and SS02 exceeded the Closure Criteria for TPH-GRO, TPH-DRO and TPH. Laboratory analytical results for excavation composite sidewall sample SW01 and SW02, and composite floor samples FS01 and FS02, collected from the final excavation extents, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 3.

CLOSURE REQUEST

Response efforts as a result of the October 8, 2020 crude oil release included excavation and removal of impacted soil, and collection of confirmation soil samples. Based on analytical results, the impacted soil was removed to depths ranging from 3 to 4 feet bgs. Laboratory analytical results for the excavation confirmation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and the reclamation standard and no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Based on the confirmation soil sample analytical results indicating benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the strictest Closure Criteria, XTO respectfully requests NFA for Incident Number NRM2030234533.

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

Sincerely,

Elizabeth Naka
Assistant Consultant, Environmental Scientist

Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
United States Bureau of Land Management – New Mexico

Attachments:

FIGURES

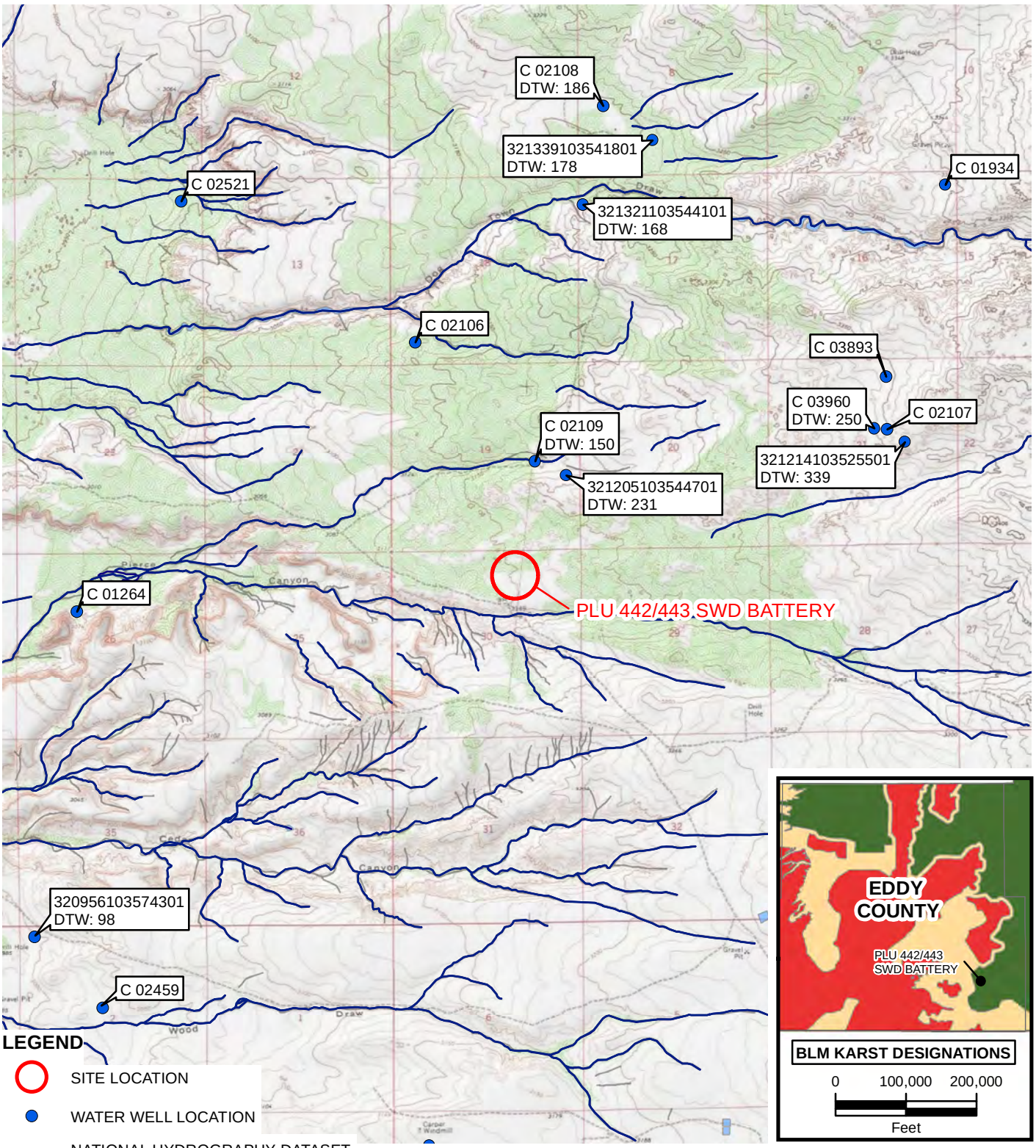


FIGURE 1
SITE LOCATION MAP
PLU 442/443 SWD BATTERY
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG01_SL_RECEPTOR_BATTERY_2020.mxd

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- RELEASE EXTENT
- INFRASTRUCTURE
- EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2030234533
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 442-443
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG02_PRELIMINARY_2020.mxd

LEGEND

- RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- EXCAVATION EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER NRM2030234533
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 442-443
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG03_EXCAVATION_2020.mxd

TABLES

Table 1

Soil Analytical Results
PLU 442-443
Incident Number NRM2030234533
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Surface Samples										
SS01	11/03/2020	2.3	<0.00201	<0.00201	<248	8,690	1,210	**8,690**	**9,900**	8,880
SS02	11/03/2020	2.3	<0.00198	<0.00198	<49.8	2,870	510	**2,870**	**3,380**	14,800
Excavation Floor Samples										
FS01	11/19/2020	3	<0.00200	<0.002000	<50.1	<50.1	<50.1	<50.10	<50.10	48.0
FS02	11/19/2020	4	<0.00199	<0.001990	<50.2	<50.2	<50.2	<50.20	<50.20	44.6
Excavation Sidewall Samples										
SW01	11/19/2020	0 - 4	<0.00200	<0.002000	<49.9	<49.9	<49.9	<49.90	<49.90	273
SW02	11/19/2020	0 - 3	<0.00200	<0.002000	<50.2	<50.2	<50.2	<50.20	<50.20	40.5

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Text impacted soil has been excavated

ATTACHMENT 1: REFERENCED WELL RECORD

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02109	1	2	4	19	24S	30E	602130	3563412

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date:		**Drill Finish Date:**	12/31/1963	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	40 GPM
Casing Size:	7.00	**Depth Well:**	130 feet	**Depth Water:**	150 feet

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321205103544701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

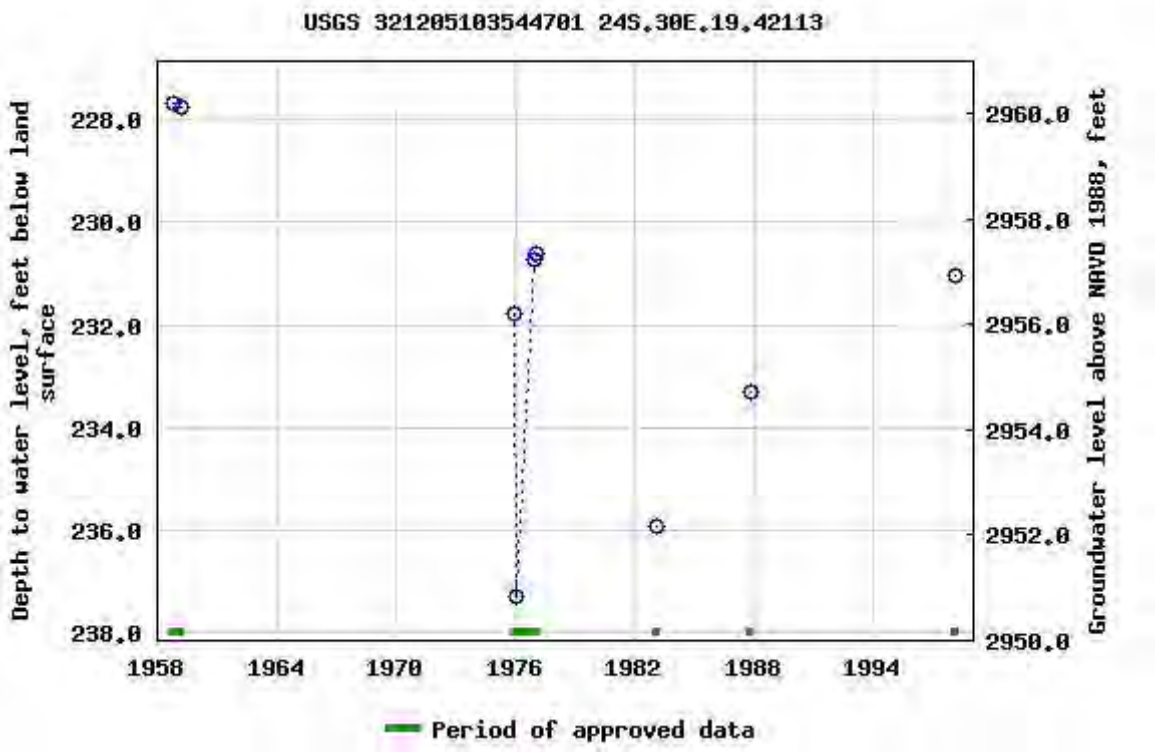
USGS 321205103544701 24S.30E.19.42113

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°12'05", Longitude 103°54'47" NAD27
Land-surface elevation 3,188 feet above NAVD88
The depth of the well is 452 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2020-10-26 17:31:08 EDT
0.61 0.51 nadww01

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Poker Lake Unit 442-443 Eddy County, New Mexico	NRM2030234533

Photo No.	Date
1	November 3, 2020

View of staining around flare stack facing East.

Photo No.	Date
2	November 3, 2020

View of staining around flare stack facing North.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Poker Lake Unit 442-443 Eddy County, New Mexico	NRM2030234533

Photo No.	Date
3	November 19, 2020

View of excavation facing North

Photo No.	Date
4	November 19, 2020

View of excavation facing East.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 676789

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

Project Id: 012920153
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 11.03.2020 12:20
Report Date: 11.05.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	676789-001		676789-002									
	Field Id:	SS01		SS02									
	Depth:	2.3- ft		2.3- ft									
	Matrix:	SOIL		SOIL									
	Sampled:	11.03.2020 09:48		11.03.2020 09:50									
BTEX by EPA 8021B	***Extracted:***	11.03.2020 16:11		11.03.2020 16:11									
	Analyzed:	11.04.2020 07:56		11.04.2020 08:19									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.00201	0.00201	<0.00198	0.00198								
Toluene		<0.00201	0.00201	<0.00198	0.00198								
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198								
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397								
o-Xylene		<0.00201	0.00201	<0.00198	0.00198								
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198								
Total BTEX		<0.00201	0.00201	<0.00198	0.00198								
Chloride by EPA 300	***Extracted:***	11.03.2020 17:13		11.03.2020 17:13									
	Analyzed:	11.03.2020 22:11		11.03.2020 22:17									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		8880	101	14800	99.2								
TPH by SW8015 Mod	***Extracted:***	11.04.2020 13:00		11.04.2020 13:00									
	Analyzed:	11.04.2020 19:29		11.04.2020 19:49									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)		<248	248	<49.8	49.8								
Diesel Range Organics (DRO)		8690	248	2870	49.8								
Motor Oil Range Hydrocarbons (MRO)		1210	248	510	49.8								
Total GRO-DRO		8690	248	2870	49.8								
Total TPH		9900	248	3380	49.8								

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 676789

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 442-443

012920153

11.05.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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11.05.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **676789**
PLU 442-443
Project Address: Eddy County, New Mexico

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 Eurofins Xenco, LLC Report Number(s) 676789. 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 Eurofins Xenco, LLC. 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. 676789 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.03.2020 09:48	2.3 ft	676789-001
SS02	S	11.03.2020 09:50	2.3 ft	676789-002

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

Project ID: *012920153*
Work Order Number(s): *676789*

Report Date: *11.05.2020*
Date Received: *11.03.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-001	Date Collected:	11.03.2020 09:48	Sample Depth:	2.3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 17:13	% Moisture:	
Seq Number:	3141308			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8880**	101	mg/kg	11.03.2020 22:11		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.04.2020 13:00	% Moisture:	
Seq Number:	3141396			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<248	248	mg/kg	11.04.2020 19:29	U	5
Diesel Range Organics (DRO)	C10C28DRO	**8690**	248	mg/kg	11.04.2020 19:29		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1210**	248	mg/kg	11.04.2020 19:29		5
Total GRO-DRO	PHC628	**8690**	248	mg/kg	11.04.2020 19:29		5
Total TPH	PHC635	**9900**	248	mg/kg	11.04.2020 19:29		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.2020 19:29	
o-Terphenyl	84-15-1	116	%	70-135	11.04.2020 19:29	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-001	Date Collected:	11.03.2020 09:48	Sample Depth:	2.3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 16:11	% Moisture:	
Seq Number:	3141313			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.04.2020 07:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.04.2020 07:56	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.04.2020 07:56	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-002	Date Collected:	11.03.2020 09:50	Sample Depth:	2.3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 17:13	% Moisture:	
Seq Number:	3141308			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14800**	99.2	mg/kg	11.03.2020 22:17		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.04.2020 13:00	% Moisture:	
Seq Number:	3141396			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.04.2020 19:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2870**	49.8	mg/kg	11.04.2020 19:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**510**	49.8	mg/kg	11.04.2020 19:49		1
Total GRO-DRO	PHC628	**2870**	49.8	mg/kg	11.04.2020 19:49		1
Total TPH	PHC635	**3380**	49.8	mg/kg	11.04.2020 19:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.04.2020 19:49	
o-Terphenyl	84-15-1	117	%	70-135	11.04.2020 19:49	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-002	Date Collected:	11.03.2020 09:50	Sample Depth:	2.3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 16:11	% Moisture:	
Seq Number:	3141313			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.04.2020 08:19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.04.2020 08:19	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.2020 08:19	

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 676789

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LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Solid — Date Prep: 11.03.2020
MB Sample Id: 7714459-1-BLK — LCS Sample Id: 7714459-1-BKS — LCSD Sample Id: 7714459-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	260	104	90-110	0	20	mg/kg	11.03.2020 21:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Soil — Date Prep: 11.03.2020
Parent Sample Id: 676786-006 — MS Sample Id: 676786-006 S — MSD Sample Id: 676786-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	578	200	769	96	771	97	90-110	0	20	mg/kg	11.03.2020 21:28	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Soil — Date Prep: 11.03.2020
Parent Sample Id: 676812-002 — MS Sample Id: 676812-002 S — MSD Sample Id: 676812-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12000	494	12500	101	12500	101	90-110	0	20	mg/kg	11.03.2020 22:44	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141396 — Matrix: Solid — Date Prep: 11.04.2020
MB Sample Id: 7714497-1-BLK — LCS Sample Id: 7714497-1-BKS — LCSD Sample Id: 7714497-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	968	97	934	93	70-135	4	35	mg/kg	11.04.2020 15:46	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1040	104	70-135	5	35	mg/kg	11.04.2020 15:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		132		130		70-135	%	11.04.2020 15:46
o-Terphenyl	103		108		104		70-135	%	11.04.2020 15:46

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141396 — Matrix: Solid — Date Prep: 11.04.2020
MB Sample Id: 7714497-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.04.2020 15:25	

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

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

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

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QC Summary 676789

LT Environmental, Inc.

PLU 442-443

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141396 Matrix: Soil Date Prep: 11.04.2020
Parent Sample Id: 676786-001 MS Sample Id: 676786-001 S MSD Sample Id: 676786-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	856	86	849	85	70-135	1	35	mg/kg	11.04.2020 16:46	
Diesel Range Organics (DRO)	<50.0	999	937	94	958	96	70-135	2	35	mg/kg	11.04.2020 16:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		134		70-135	%	11.04.2020 16:46
o-Terphenyl	110		115		70-135	%	11.04.2020 16:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141313 Matrix: Solid Date Prep: 11.03.2020
MB Sample Id: 7714467-1-BLK LCS Sample Id: 7714467-1-BKS LCSD Sample Id: 7714467-1-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	0.0865	87	0.0906	91	70-130	5	35	mg/kg	11.03.2020 22:56	
Toluene	<0.00200	0.100	0.0841	84	0.0865	87	70-130	3	35	mg/kg	11.03.2020 22:56	
Ethylbenzene	<0.00200	0.100	0.0856	86	0.0907	91	71-129	6	35	mg/kg	11.03.2020 22:56	
m,p-Xylenes	<0.00400	0.200	0.175	88	0.185	93	70-135	6	35	mg/kg	11.03.2020 22:56	
o-Xylene	<0.00200	0.100	0.0876	88	0.0889	89	71-133	1	35	mg/kg	11.03.2020 22:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		97		102		70-130	%	11.03.2020 22:56
4-Bromofluorobenzene	108		104		110		70-130	%	11.03.2020 22:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141313 Matrix: Soil Date Prep: 11.03.2020
Parent Sample Id: 676778-009 MS Sample Id: 676778-009 S MSD Sample Id: 676778-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.100	101	0.108	108	70-130	8	35	mg/kg	11.03.2020 23:41	
Toluene	<0.00199	0.0994	0.0891	90	0.0983	99	70-130	10	35	mg/kg	11.03.2020 23:41	
Ethylbenzene	<0.00199	0.0994	0.0862	87	0.100	100	71-129	15	35	mg/kg	11.03.2020 23:41	
m,p-Xylenes	<0.00398	0.199	0.173	87	0.203	102	70-135	16	35	mg/kg	11.03.2020 23:41	
o-Xylene	<0.00199	0.0994	0.0918	92	0.102	102	71-133	11	35	mg/kg	11.03.2020 23:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		70-130	%	11.03.2020 23:41
4-Bromofluorobenzene	110		111		70-130	%	11.03.2020 23:41

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

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

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

Chain of Custody

Work Order No: 6076789

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

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Project Manager:	Kalei Jennings	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) 214-9472	Email:	fsmith@ltenv.com, kjennings@ltenv.com

Work Order Comments

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

Project Name:	PLU 442-443	Turn Around	
Project Number:	012920153	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4 | 1.2	Thermometer ID	TNM007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	2
Sample Custody Seals:	Yes (No) N/A		

ANALYSIS REQUEST

Preservative Codes

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

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA O=8021)	Chloride (EPA 3000)	Sample Comments
	SS01	S	11/3/20	0948	2' 3"	1		X	X	X	
	SS02	S	11/3/20	0950	2' 3"	1		X	X	X	

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/3/20 12:20	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.03.2020 12.20.00 PM

Work Order #: 676789

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	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#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: Cloe Clifton Date: 11.03.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.04.2020

Jessica Kramer

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Certificate of Analysis Summary 678521

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

Project Id: TE012920153
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 10:07
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678521-001		678521-002		678521-003		678521-004					
	Field Id:	FS01		FS02		SW01		SW02					
	Depth:	3- ft		4- ft		0-4 ft		0-3 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	11.19.2020 10:30		11.19.2020 10:40		11.19.2020 11:00		11.19.2020 11:20					
BTEX by EPA 8021B	***Extracted:***	11.20.2020 10:58		11.20.2020 10:58		11.20.2020 10:58		11.20.2020 10:58					
	Analyzed:	11.21.2020 02:07		11.21.2020 02:30		11.21.2020 02:52		11.21.2020 03:14					
	Units/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				
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Total BTEX		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Chloride by EPA 300	***Extracted:***	11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00					
	Analyzed:	11.20.2020 21:21		11.20.2020 21:26		11.20.2020 21:32		11.20.2020 21:37					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		48.0	9.98	44.6	9.98	273	9.92	40.5	9.98				
TPH by SW8015 Mod	***Extracted:***	11.20.2020 10:00		11.20.2020 10:00		11.20.2020 10:00		11.20.2020 10:00					
	Analyzed:	11.20.2020 15:28		11.20.2020 15:47		11.20.2020 16:07		11.20.2020 16:28					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Diesel Range Organics (DRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Total GRO-DRO		<50.10	50.10	<50.20	50.20	<49.90	49.90	<50.20	50.20				
Total TPH		<50.10	50.10	<50.20	50.20	<49.90	49.90	<50.20	50.20				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 678521

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 442-443

TE012920153

11.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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11.23.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **678521**
PLU 442-443
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 Eurofins Xenco, LLC Report Number(s) 678521. 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 Eurofins Xenco, LLC. 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. 678521 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11.19.2020 10:30	3 ft	678521-001
FS02	S	11.19.2020 10:40	4 ft	678521-002
SW01	S	11.19.2020 11:00	0 - 4 ft	678521-003
SW02	S	11.19.2020 11:20	0 - 3 ft	678521-004

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

Project ID: *TE012920153*
Work Order Number(s): *678521*

Report Date: *11.23.2020*
Date Received: *11.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-001	Date Collected:	11.19.2020 10:30	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**48.0**	9.98	mg/kg	11.20.2020 21:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Total GRO-DRO	PHC628	<50.10	50.10	mg/kg	11.20.2020 15:28	U	1
Total TPH	PHC635	<50.10	50.10	mg/kg	11.20.2020 15:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.20.2020 15:28	
o-Terphenyl	84-15-1	96	%	70-135	11.20.2020 15:28	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-001	Date Collected:	11.19.2020 10:30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.21.2020 02:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 02:07	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 02:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.21.2020 02:07	
4-Bromofluorobenzene	460-00-4	89	%	70-130	11.21.2020 02:07	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-002	Date Collected:	11.19.2020 10:40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.6**	9.98	mg/kg	11.20.2020 21:26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Total GRO-DRO	PHC628	<50.20	50.20	mg/kg	11.20.2020 15:47	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	11.20.2020 15:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.20.2020 15:47	
o-Terphenyl	84-15-1	118	%	70-135	11.20.2020 15:47	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-002	Date Collected:	11.19.2020 10:40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.21.2020 02:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.21.2020 02:30	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.21.2020 02:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.21.2020 02:30	
4-Bromofluorobenzene	460-00-4	89	%	70-130	11.21.2020 02:30	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-003	Date Collected:	11.19.2020 11:00	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**273**	9.92	mg/kg	11.20.2020 21:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Total GRO-DRO	PHC628	<49.90	49.90	mg/kg	11.20.2020 16:07	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.20.2020 16:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.20.2020 16:07	
o-Terphenyl	84-15-1	98	%	70-135	11.20.2020 16:07	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-003	Date Collected:	11.19.2020 11:00	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.21.2020 02:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 02:52	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 02:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.21.2020 02:52	
4-Bromofluorobenzene	460-00-4	87	%	70-130	11.21.2020 02:52	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-004	Date Collected:	11.19.2020 11:20	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.5**	9.98	mg/kg	11.20.2020 21:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Total GRO-DRO	PHC628	<50.20	50.20	mg/kg	11.20.2020 16:28	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	11.20.2020 16:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	11.20.2020 16:28	
o-Terphenyl	84-15-1	112	%	70-135	11.20.2020 16:28	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-004	Date Collected:	11.19.2020 11:20	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.21.2020 03:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 03:14	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 03:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.21.2020 03:14	
4-Bromofluorobenzene	460-00-4	87	%	70-130	11.21.2020 03:14	

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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QC Summary 678521

LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715681-1-BLK — LCS Sample Id: 7715681-1-BKS — LCSD Sample Id: 7715681-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	253	101	90-110	0	20	mg/kg	11.20.2020 20:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678519-001 — MS Sample Id: 678519-001 S — MSD Sample Id: 678519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.3	199	217	102	219	103	90-110	1	20	mg/kg	11.20.2020 20:35	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678523-001 — MS Sample Id: 678523-001 S — MSD Sample Id: 678523-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	358	200	567	105	565	104	90-110	0	20	mg/kg	11.20.2020 21:47	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142933 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715676-1-BLK — LCS Sample Id: 7715676-1-BKS — LCSD Sample Id: 7715676-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1110	111	1190	119	70-135	7	35	mg/kg	11.20.2020 12:06	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1170	117	70-135	7	35	mg/kg	11.20.2020 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		113		110		70-135	%	11.20.2020 12:06
o-Terphenyl	104		104		113		70-135	%	11.20.2020 12:06

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142933 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715676-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2020 11:46	

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

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QC Summary 678521

LT Environmental, Inc.

PLU 442-443

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142933 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678519-001 MS Sample Id: 678519-001 S MSD Sample Id: 678519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1150	115	1110	111	70-135	4	35	mg/kg	11.20.2020 13:06	
Diesel Range Organics (DRO)	<50.2	1000	1220	122	1130	113	70-135	8	35	mg/kg	11.20.2020 13:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		112		70-135	%	11.20.2020 13:06
o-Terphenyl	114		106		70-135	%	11.20.2020 13:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142935 Matrix: Solid Date Prep: 11.20.2020
MB Sample Id: 7715671-1-BLK LCS Sample Id: 7715671-1-BKS LCSD Sample Id: 7715671-1-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	0.113	113	0.103	103	70-130	9	35	mg/kg	11.20.2020 17:33	
Toluene	<0.00200	0.100	0.106	106	0.0970	97	70-130	9	35	mg/kg	11.20.2020 17:33	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0897	90	71-129	8	35	mg/kg	11.20.2020 17:33	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.181	91	70-135	7	35	mg/kg	11.20.2020 17:33	
o-Xylene	<0.00200	0.100	0.0965	97	0.0909	91	71-133	6	35	mg/kg	11.20.2020 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		100		70-130	%	11.20.2020 17:33
4-Bromofluorobenzene	88		86		85		70-130	%	11.20.2020 17:33

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142935 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678524-003 MS Sample Id: 678524-003 S MSD Sample Id: 678524-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.111	111	0.109	110	70-130	2	35	mg/kg	11.20.2020 18:18	
Toluene	<0.00200	0.0998	0.106	106	0.105	106	70-130	1	35	mg/kg	11.20.2020 18:18	
Ethylbenzene	<0.00200	0.0998	0.0975	98	0.0959	96	71-129	2	35	mg/kg	11.20.2020 18:18	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.194	97	70-135	2	35	mg/kg	11.20.2020 18:18	
o-Xylene	<0.00200	0.0998	0.0971	97	0.0949	95	71-133	2	35	mg/kg	11.20.2020 18:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	11.20.2020 18:18
4-Bromofluorobenzene	82		86		70-130	%	11.20.2020 18:18

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

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

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

Chain of Custody

Work Order No: E678521

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 442-443	Turn Around	
Project Number:	TE012920153	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.4/2.2	Thermometer ID	T-NM4-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	4	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	11/19/2020	1030	3'	1	X	X	X
FS02	S	11/19/2020	1040	4'	1	X	X	X
SW01	S	11/19/2020	1100	0-4'	1	X	X	X
SW02	S	11/19/2020	1120	0-3'	1	X	X	X

Work Order Notes

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

Sample Comments

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cloe Cuello	11.19.20 1517			
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.19.2020 03.17.00 PM

Work Order #: 678521

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

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#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: Cloe Clifton Date: 11.19.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.20.2020

Jessica Kramer

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	NRM2030234533
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.19297 Longitude -103.91887

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 442-443	Site Type Tank Battery
Date Release Discovered 10/8/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
B	30	24S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .12	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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: Water dump line plugged with scale causing the flare scrubber to fill with fluid and flow out of the flare stack. Evidence was found indicating a small fire that extinguished itself below the flare. A third party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
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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? A small fire occurred at the base of the flare. Fire extinguished itself.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Adrian Baker to 'Venegas, Victoria, EMNRD'; Bartels, Robert; 'Bratcher, Mike, EMNRD'; 'Griswold, Jim, EMNRD'; 'Morgan, Crisha A'; 'CFO_Spill, BLM_NM' on Thursday, October 8, 2020 5:03 PM via 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 Supervisor
Signature:
Date: 10-22-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 10/28/2020

Location:	PLU 442-443	
Spill Date:	10/8/2020	
Area 1		
Approximate Area =	521.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.12	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.12**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 12/11/2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030234533
District RP	
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: 12/11/2020

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

OCD Only

Received by: Chad Hensley Date: 04/22/2021

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: 04/22/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

WSP USA
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

December 11, 2020

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Closure Request
PLU 442-443
Incident Number NRM2030234533
Eddy County, New Mexico

To Whom It May Concern:

WSP USA, Inc. (WSP) (formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Poker Lake Unit (PLU) 442-443 (Site) in Unit B, Section 30, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil at the Site. Based on the field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2030234533.

RELEASE BACKGROUND

On October 8, 2020, the flare scrubber filled with fluid, causing a release of approximately 0.12 barrels (bbls) of crude oil through the flare stack which resulted in a small fire. The fire extinguished itself and there were no standing fluids to recover. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on October 8, 2020. Then on a Release Notification and Corrective Action Form C-141 (Form C-141) on October 22, 2020 and assigned Incident Number NRM2030234533.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321205103544701, located approximately 0.61 miles northwest of the Site. The groundwater well was most recently measured in January 1998 and has a reported depth to groundwater of 231 feet bgs and a total depth of 452 feet bgs. Ground surface elevation at the groundwater well

location is 3,193 feet above mean sea level (amsl), which is approximately 35 feet higher in elevation than the Site. There are five additional groundwater wells within a 2.5-mile radius of the Site that indicate regional depth to groundwater is greater than 100 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated referenced well records are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 1,020 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES

On November 3, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The impacted area was previously excavated in response to a separate release on May 20, 2020 (NRM2016049766). Approximately 30 cubic yards of impacted soil were removed by WSP prior to this release and was scheduled to be backfilled. WSP personnel collected two preliminary soil samples (SS01 and SS02) within the open release extent. The two preliminary soil samples were collected from a depth of approximately 2.3 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil

samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil sample SS01 and SS02 indicated that TPH-GRO, TPH-DRO and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, excavation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES

On November 19, 2020, WSP personnel returned to the Site to oversee excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

Excavation of impacted soil was completed in the areas surrounding preliminary soil samples SS01 and SS02. Excavation activities were performed using track-mounted backhoe and transport vehicle. Excavation activities occurred on pad surrounding the production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floors of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation measured approximately 308 square feet in area and was completed to depths ranging from approximately 3 to 4 feet bgs. A total of 2 composite floor samples, FS01 and FS02, were collected from the excavation at depths ranging from 3 to 4 feet bgs. Composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths from the ground surface to 4 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The excavation area totaled approximately 308 square feet. A total of approximately 17 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing. The area north of the flare stack will be reseeded and backfilled with material purchased locally and recontour the Site to match pre-existing site conditions.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples indicated that soil samples SS01 and SS02 exceeded the Closure Criteria for TPH-GRO, TPH-DRO and TPH. Laboratory analytical results for excavation composite sidewall sample SW01 and SW02, and composite floor samples FS01 and FS02, collected from the final excavation extents, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 3.

CLOSURE REQUEST

Response efforts as a result of the October 8, 2020 crude oil release included excavation and removal of impacted soil, and collection of confirmation soil samples. Based on analytical results, the impacted soil was removed to depths ranging from 3 to 4 feet bgs. Laboratory analytical results for the excavation confirmation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and the reclamation standard and no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Based on the confirmation soil sample analytical results indicating benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the strictest Closure Criteria, XTO respectfully requests NFA for Incident Number NRM2030234533.

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

Sincerely,

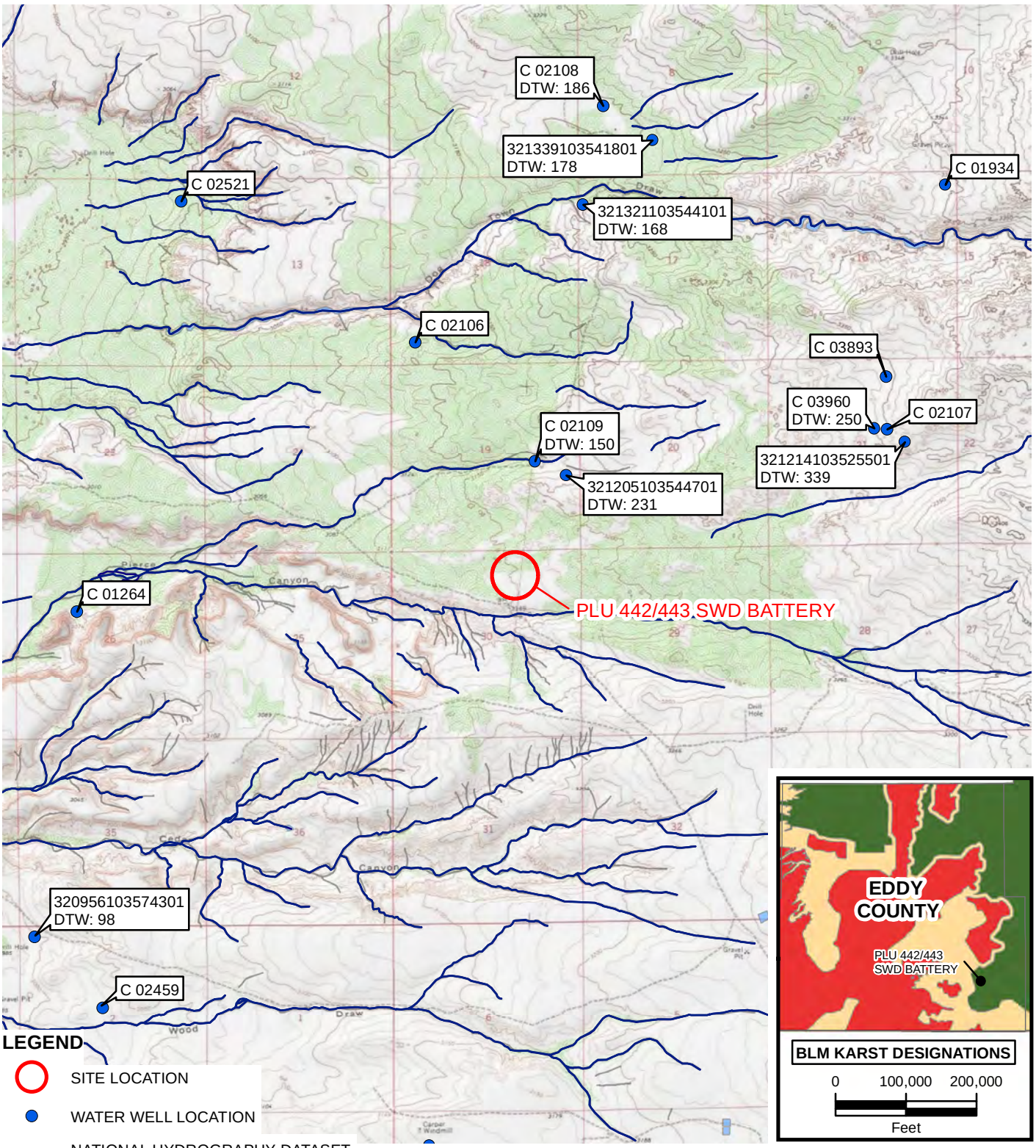
Elizabeth Naka
Assistant Consultant, Environmental Scientist

Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
United States Bureau of Land Management – New Mexico

Attachments:

FIGURES



NOTE: INCIDENT NUMBER NRM2030234533
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
PLU 442/443 SWD BATTERY
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG01_SL_RECEPTOR_BATTERY_2020.mxd

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- RELEASE EXTENT
- INFRASTRUCTURE
- EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2030234533
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 442-443
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG02_PRELIMINARY_2020.mxd

LEGEND

- RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- EXCAVATION EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER NRM2030234533
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 442-443
UNIT B SEC 30 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920153_PLU 442-443\012920153_FIG03_EXCAVATION_2020.mxd

TABLES

Table 1

Soil Analytical Results
PLU 442-443
Incident Number NRM2030234533
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Surface Samples										
SS01	11/03/2020	2.3	<0.00201	<0.00201	<248	8,690	1,210	**8,690**	**9,900**	8,880
SS02	11/03/2020	2.3	<0.00198	<0.00198	<49.8	2,870	510	**2,870**	**3,380**	14,800
Excavation Floor Samples										
FS01	11/19/2020	3	<0.00200	<0.002000	<50.1	<50.1	<50.1	<50.10	<50.10	48.0
FS02	11/19/2020	4	<0.00199	<0.001990	<50.2	<50.2	<50.2	<50.20	<50.20	44.6
Excavation Sidewall Samples										
SW01	11/19/2020	0 - 4	<0.00200	<0.002000	<49.9	<49.9	<49.9	<49.90	<49.90	273
SW02	11/19/2020	0 - 3	<0.00200	<0.002000	<50.2	<50.2	<50.2	<50.20	<50.20	40.5

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Text impacted soil has been excavated

ATTACHMENT 1: REFERENCED WELL RECORD

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02109	1	2	4	19	24S	30E	602130	3563412

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date:		**Drill Finish Date:**	12/31/1963	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	40 GPM
Casing Size:	7.00	**Depth Well:**	130 feet	**Depth Water:**	150 feet

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321205103544701

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

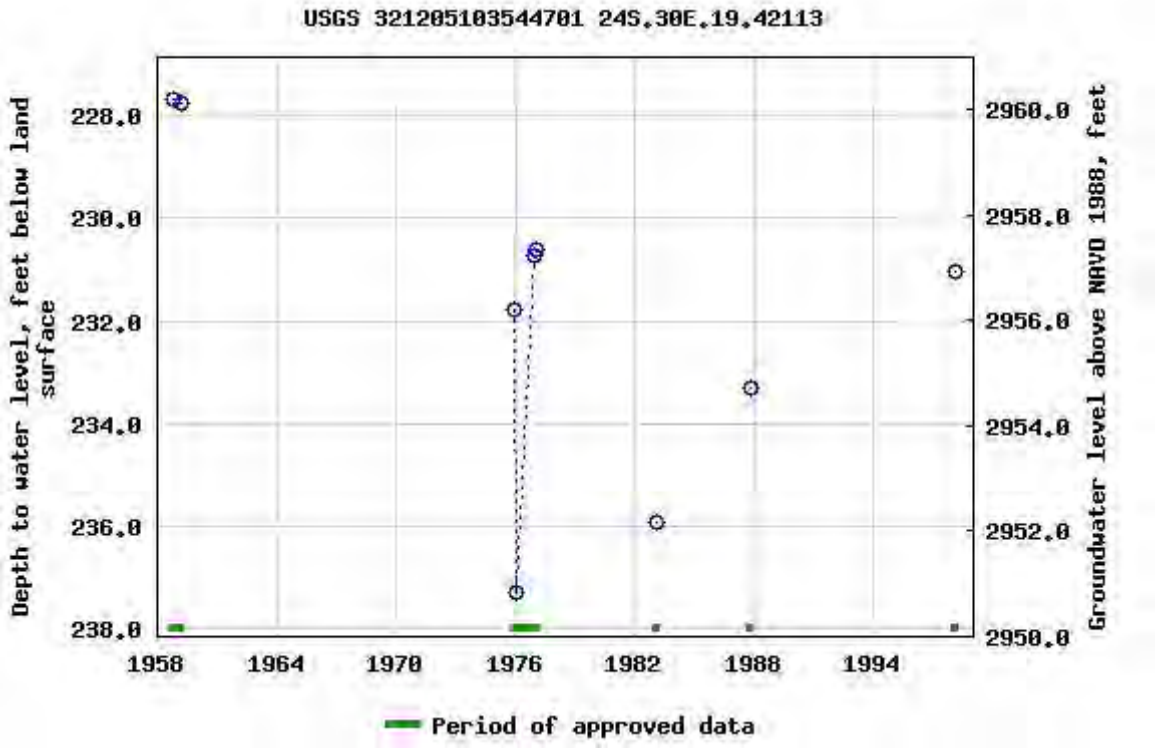
USGS 321205103544701 24S.30E.19.42113

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°12'05", Longitude 103°54'47" NAD27
Land-surface elevation 3,188 feet above NAVD88
The depth of the well is 452 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2020-10-26 17:31:08 EDT
0.61 0.51 nadww01

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Poker Lake Unit 442-443 Eddy County, New Mexico	NRM2030234533

Photo No.	Date
1	November 3, 2020

View of staining around flare stack facing East.

Photo No.	Date
2	November 3, 2020

View of staining around flare stack facing North.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Poker Lake Unit 442-443 Eddy County, New Mexico	NRM2030234533

Photo No.	Date
3	November 19, 2020

View of excavation facing North

Photo No.	Date
4	November 19, 2020

View of excavation facing East.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

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Certificate of Analysis Summary 676789

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

Project Id: 012920153
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 11.03.2020 12:20
Report Date: 11.05.2020 10:52
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	676789-001		676789-002					
	Field Id:	SS01		SS02					
	Depth:	2.3- ft		2.3- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.03.2020 09:48		11.03.2020 09:50					
BTEX by EPA 8021B	***Extracted:***	11.03.2020 16:11		11.03.2020 16:11					
	Analyzed:	11.04.2020 07:56		11.04.2020 08:19					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00198	0.00198				
Toluene		<0.00201	0.00201	<0.00198	0.00198				
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198				
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397				
o-Xylene		<0.00201	0.00201	<0.00198	0.00198				
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198				
Total BTEX		<0.00201	0.00201	<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	11.03.2020 17:13		11.03.2020 17:13					
	Analyzed:	11.03.2020 22:11		11.03.2020 22:17					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		8880	101	14800	99.2				
TPH by SW8015 Mod	***Extracted:***	11.04.2020 13:00		11.04.2020 13:00					
	Analyzed:	11.04.2020 19:29		11.04.2020 19:49					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<248	248	<49.8	49.8				
Diesel Range Organics (DRO)		8690	248	2870	49.8				
Motor Oil Range Hydrocarbons (MRO)		1210	248	510	49.8				
Total GRO-DRO		8690	248	2870	49.8				
Total TPH		9900	248	3380	49.8				

BRL - Below Reporting Limit

Jessica Kramer

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

eurofins | Environment Testing Xenco

Analytical Report 676789

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 442-443

012920153

11.05.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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11.05.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **676789**
PLU 442-443
Project Address: Eddy County, New Mexico

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 Eurofins Xenco, LLC Report Number(s) 676789. 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 Eurofins Xenco, LLC. 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. 676789 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.03.2020 09:48	2.3 ft	676789-001
SS02	S	11.03.2020 09:50	2.3 ft	676789-002

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

Project ID: *012920153*
Work Order Number(s): *676789*

Report Date: *11.05.2020*
Date Received: *11.03.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-001	Date Collected:	11.03.2020 09:48	Sample Depth:	2.3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 17:13	% Moisture:	
Seq Number:	3141308			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8880**	101	mg/kg	11.03.2020 22:11		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.04.2020 13:00	% Moisture:	
Seq Number:	3141396			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<248	248	mg/kg	11.04.2020 19:29	U	5
Diesel Range Organics (DRO)	C10C28DRO	**8690**	248	mg/kg	11.04.2020 19:29		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1210**	248	mg/kg	11.04.2020 19:29		5
Total GRO-DRO	PHC628	**8690**	248	mg/kg	11.04.2020 19:29		5
Total TPH	PHC635	**9900**	248	mg/kg	11.04.2020 19:29		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.04.2020 19:29	
o-Terphenyl	84-15-1	116	%	70-135	11.04.2020 19:29	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-001	Date Collected:	11.03.2020 09:48	Sample Depth:	2.3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 16:11	% Moisture:	
Seq Number:	3141313			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.04.2020 07:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.04.2020 07:56	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.04.2020 07:56	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-002	Date Collected:	11.03.2020 09:50	Sample Depth:	2.3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 17:13	% Moisture:	
Seq Number:	3141308			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14800**	99.2	mg/kg	11.03.2020 22:17		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.04.2020 13:00	% Moisture:	
Seq Number:	3141396			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.04.2020 19:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	**2870**	49.8	mg/kg	11.04.2020 19:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**510**	49.8	mg/kg	11.04.2020 19:49		1
Total GRO-DRO	PHC628	**2870**	49.8	mg/kg	11.04.2020 19:49		1
Total TPH	PHC635	**3380**	49.8	mg/kg	11.04.2020 19:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.04.2020 19:49	
o-Terphenyl	84-15-1	117	%	70-135	11.04.2020 19:49	

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Certificate of Analytical Results 676789

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	11.03.2020 12:20
Lab Sample Id:	676789-002	Date Collected:	11.03.2020 09:50	Sample Depth:	2.3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.03.2020 16:11	% Moisture:	
Seq Number:	3141313			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.04.2020 08:19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.04.2020 08:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.04.2020 08:19	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.04.2020 08:19	

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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QC Summary 676789

LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Solid — Date Prep: 11.03.2020
MB Sample Id: 7714459-1-BLK — LCS Sample Id: 7714459-1-BKS — LCSD Sample Id: 7714459-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	260	104	90-110	0	20	mg/kg	11.03.2020 21:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Soil — Date Prep: 11.03.2020
Parent Sample Id: 676786-006 — MS Sample Id: 676786-006 S — MSD Sample Id: 676786-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	578	200	769	96	771	97	90-110	0	20	mg/kg	11.03.2020 21:28	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141308 — Matrix: Soil — Date Prep: 11.03.2020
Parent Sample Id: 676812-002 — MS Sample Id: 676812-002 S — MSD Sample Id: 676812-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12000	494	12500	101	12500	101	90-110	0	20	mg/kg	11.03.2020 22:44	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141396 — Matrix: Solid — Date Prep: 11.04.2020
MB Sample Id: 7714497-1-BLK — LCS Sample Id: 7714497-1-BKS — LCSD Sample Id: 7714497-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	968	97	934	93	70-135	4	35	mg/kg	11.04.2020 15:46	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1040	104	70-135	5	35	mg/kg	11.04.2020 15:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		132		130		70-135	%	11.04.2020 15:46
o-Terphenyl	103		108		104		70-135	%	11.04.2020 15:46

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141396 — Matrix: Solid — Date Prep: 11.04.2020
MB Sample Id: 7714497-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.04.2020 15:25	

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

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

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

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QC Summary 676789

LT Environmental, Inc.

PLU 442-443

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141396 Matrix: Soil Date Prep: 11.04.2020
Parent Sample Id: 676786-001 MS Sample Id: 676786-001 S MSD Sample Id: 676786-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	856	86	849	85	70-135	1	35	mg/kg	11.04.2020 16:46	
Diesel Range Organics (DRO)	<50.0	999	937	94	958	96	70-135	2	35	mg/kg	11.04.2020 16:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		134		70-135	%	11.04.2020 16:46
o-Terphenyl	110		115		70-135	%	11.04.2020 16:46

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141313 Matrix: Solid Date Prep: 11.03.2020
MB Sample Id: 7714467-1-BLK LCS Sample Id: 7714467-1-BKS LCSD Sample Id: 7714467-1-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	0.0865	87	0.0906	91	70-130	5	35	mg/kg	11.03.2020 22:56	
Toluene	<0.00200	0.100	0.0841	84	0.0865	87	70-130	3	35	mg/kg	11.03.2020 22:56	
Ethylbenzene	<0.00200	0.100	0.0856	86	0.0907	91	71-129	6	35	mg/kg	11.03.2020 22:56	
m,p-Xylenes	<0.00400	0.200	0.175	88	0.185	93	70-135	6	35	mg/kg	11.03.2020 22:56	
o-Xylene	<0.00200	0.100	0.0876	88	0.0889	89	71-133	1	35	mg/kg	11.03.2020 22:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		97		102		70-130	%	11.03.2020 22:56
4-Bromofluorobenzene	108		104		110		70-130	%	11.03.2020 22:56

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141313 Matrix: Soil Date Prep: 11.03.2020
Parent Sample Id: 676778-009 MS Sample Id: 676778-009 S MSD Sample Id: 676778-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.100	101	0.108	108	70-130	8	35	mg/kg	11.03.2020 23:41	
Toluene	<0.00199	0.0994	0.0891	90	0.0983	99	70-130	10	35	mg/kg	11.03.2020 23:41	
Ethylbenzene	<0.00199	0.0994	0.0862	87	0.100	100	71-129	15	35	mg/kg	11.03.2020 23:41	
m,p-Xylenes	<0.00398	0.199	0.173	87	0.203	102	70-135	16	35	mg/kg	11.03.2020 23:41	
o-Xylene	<0.00199	0.0994	0.0918	92	0.102	102	71-133	11	35	mg/kg	11.03.2020 23:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		70-130	%	11.03.2020 23:41
4-Bromofluorobenzene	110		111		70-130	%	11.03.2020 23:41

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

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

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

Chain of Custody

Work Order No: 1076789

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

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Project Manager:	Kalei Jennings	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) 214-9472	Email:	fsmith@ltenv.com, kjennings@ltenv.com

Work Order Comments

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

Project Name:	PLU 442-443	Turn Around	
Project Number:	012920153	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4 | 1.2	Thermometer ID	TNM007
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	2
Sample Custody Seals:	Yes (No) N/A		

Preservative Codes

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

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA O = 8021)	Chloride (EPA 3000)	Sample Comments
	SS01	S	11/3/20	0948	2' 3"	1		X	X	X	
	SS02	S	11/3/20	0950	2' 3"	1		X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
1631 / 245.1 / 7470 / 7471 : Hg
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

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			11/3/20 12:20	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.03.2020 12.20.00 PM

Work Order #: 676789

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	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#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: Cloe Clifton Date: 11.03.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.04.2020

Jessica Kramer

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Certificate of Analysis Summary 678521

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

Project Id: TE012920153
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 10:07
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678521-001		678521-002		678521-003		678521-004					
	Field Id:	FS01		FS02		SW01		SW02					
	Depth:	3- ft		4- ft		0-4 ft		0-3 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	11.19.2020 10:30		11.19.2020 10:40		11.19.2020 11:00		11.19.2020 11:20					
BTEX by EPA 8021B	***Extracted:***	11.20.2020 10:58		11.20.2020 10:58		11.20.2020 10:58		11.20.2020 10:58					
	Analyzed:	11.21.2020 02:07		11.21.2020 02:30		11.21.2020 02:52		11.21.2020 03:14					
	Units/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				
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Total BTEX		<0.002000	0.002000	<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Chloride by EPA 300	***Extracted:***	11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00					
	Analyzed:	11.20.2020 21:21		11.20.2020 21:26		11.20.2020 21:32		11.20.2020 21:37					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		48.0	9.98	44.6	9.98	273	9.92	40.5	9.98				
TPH by SW8015 Mod	***Extracted:***	11.20.2020 10:00		11.20.2020 10:00		11.20.2020 10:00		11.20.2020 10:00					
	Analyzed:	11.20.2020 15:28		11.20.2020 15:47		11.20.2020 16:07		11.20.2020 16:28					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Diesel Range Organics (DRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.2	50.2	<49.9	49.9	<50.2	50.2				
Total GRO-DRO		<50.10	50.10	<50.20	50.20	<49.90	49.90	<50.20	50.20				
Total TPH		<50.10	50.10	<50.20	50.20	<49.90	49.90	<50.20	50.20				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 678521

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 442-443

TE012920153

11.23.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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11.23.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **678521**
PLU 442-443
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 Eurofins Xenco, LLC Report Number(s) 678521. 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 Eurofins Xenco, LLC. 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. 678521 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11.19.2020 10:30	3 ft	678521-001
FS02	S	11.19.2020 10:40	4 ft	678521-002
SW01	S	11.19.2020 11:00	0 - 4 ft	678521-003
SW02	S	11.19.2020 11:20	0 - 3 ft	678521-004

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

Project ID: *TE012920153*
Work Order Number(s): *678521*

Report Date: *11.23.2020*
Date Received: *11.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-001	Date Collected:	11.19.2020 10:30	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**48.0**	9.98	mg/kg	11.20.2020 21:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2020 15:28	U	1
Total GRO-DRO	PHC628	<50.10	50.10	mg/kg	11.20.2020 15:28	U	1
Total TPH	PHC635	<50.10	50.10	mg/kg	11.20.2020 15:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.20.2020 15:28	
o-Terphenyl	84-15-1	96	%	70-135	11.20.2020 15:28	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-001	Date Collected:	11.19.2020 10:30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.21.2020 02:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 02:07	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 02:07	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 02:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.21.2020 02:07	
4-Bromofluorobenzene	460-00-4	89	%	70-130	11.21.2020 02:07	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-002	Date Collected:	11.19.2020 10:40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.6**	9.98	mg/kg	11.20.2020 21:26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2020 15:47	U	1
Total GRO-DRO	PHC628	<50.20	50.20	mg/kg	11.20.2020 15:47	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	11.20.2020 15:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.20.2020 15:47	
o-Terphenyl	84-15-1	118	%	70-135	11.20.2020 15:47	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-002	Date Collected:	11.19.2020 10:40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.21.2020 02:30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.21.2020 02:30	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.21.2020 02:30	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.21.2020 02:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.21.2020 02:30	
4-Bromofluorobenzene	460-00-4	89	%	70-130	11.21.2020 02:30	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-003	Date Collected:	11.19.2020 11:00	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**273**	9.92	mg/kg	11.20.2020 21:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2020 16:07	U	1
Total GRO-DRO	PHC628	<49.90	49.90	mg/kg	11.20.2020 16:07	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.20.2020 16:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.20.2020 16:07	
o-Terphenyl	84-15-1	98	%	70-135	11.20.2020 16:07	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-003	Date Collected:	11.19.2020 11:00	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.21.2020 02:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 02:52	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 02:52	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 02:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.21.2020 02:52	
4-Bromofluorobenzene	460-00-4	87	%	70-130	11.21.2020 02:52	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-004	Date Collected:	11.19.2020 11:20	Sample Depth:	0 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.5**	9.98	mg/kg	11.20.2020 21:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 10:00	% Moisture:	
Seq Number:	3142933			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2020 16:28	U	1
Total GRO-DRO	PHC628	<50.20	50.20	mg/kg	11.20.2020 16:28	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	11.20.2020 16:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	11.20.2020 16:28	
o-Terphenyl	84-15-1	112	%	70-135	11.20.2020 16:28	

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Certificate of Analytical Results 678521

LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678521-004	Date Collected:	11.19.2020 11:20	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 10:58	% Moisture:	
Seq Number:	3142935			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.21.2020 03:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.21.2020 03:14	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.21.2020 03:14	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.21.2020 03:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.21.2020 03:14	
4-Bromofluorobenzene	460-00-4	87	%	70-130	11.21.2020 03:14	

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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QC Summary 678521

LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715681-1-BLK — LCS Sample Id: 7715681-1-BKS — LCSD Sample Id: 7715681-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	253	101	90-110	0	20	mg/kg	11.20.2020 20:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678519-001 — MS Sample Id: 678519-001 S — MSD Sample Id: 678519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.3	199	217	102	219	103	90-110	1	20	mg/kg	11.20.2020 20:35	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678523-001 — MS Sample Id: 678523-001 S — MSD Sample Id: 678523-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	358	200	567	105	565	104	90-110	0	20	mg/kg	11.20.2020 21:47	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142933 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715676-1-BLK — LCS Sample Id: 7715676-1-BKS — LCSD Sample Id: 7715676-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1110	111	1190	119	70-135	7	35	mg/kg	11.20.2020 12:06	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1170	117	70-135	7	35	mg/kg	11.20.2020 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		113		110		70-135	%	11.20.2020 12:06
o-Terphenyl	104		104		113		70-135	%	11.20.2020 12:06

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142933 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715676-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2020 11:46	

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

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

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

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QC Summary 678521

LT Environmental, Inc.

PLU 442-443

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142933 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678519-001 MS Sample Id: 678519-001 S MSD Sample Id: 678519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1150	115	1110	111	70-135	4	35	mg/kg	11.20.2020 13:06	
Diesel Range Organics (DRO)	<50.2	1000	1220	122	1130	113	70-135	8	35	mg/kg	11.20.2020 13:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		112		70-135	%	11.20.2020 13:06
o-Terphenyl	114		106		70-135	%	11.20.2020 13:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142935 Matrix: Solid Date Prep: 11.20.2020
MB Sample Id: 7715671-1-BLK LCS Sample Id: 7715671-1-BKS LCSD Sample Id: 7715671-1-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	0.113	113	0.103	103	70-130	9	35	mg/kg	11.20.2020 17:33	
Toluene	<0.00200	0.100	0.106	106	0.0970	97	70-130	9	35	mg/kg	11.20.2020 17:33	
Ethylbenzene	<0.00200	0.100	0.0969	97	0.0897	90	71-129	8	35	mg/kg	11.20.2020 17:33	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.181	91	70-135	7	35	mg/kg	11.20.2020 17:33	
o-Xylene	<0.00200	0.100	0.0965	97	0.0909	91	71-133	6	35	mg/kg	11.20.2020 17:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		100		70-130	%	11.20.2020 17:33
4-Bromofluorobenzene	88		86		85		70-130	%	11.20.2020 17:33

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142935 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678524-003 MS Sample Id: 678524-003 S MSD Sample Id: 678524-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.111	111	0.109	110	70-130	2	35	mg/kg	11.20.2020 18:18	
Toluene	<0.00200	0.0998	0.106	106	0.105	106	70-130	1	35	mg/kg	11.20.2020 18:18	
Ethylbenzene	<0.00200	0.0998	0.0975	98	0.0959	96	71-129	2	35	mg/kg	11.20.2020 18:18	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.194	97	70-135	2	35	mg/kg	11.20.2020 18:18	
o-Xylene	<0.00200	0.0998	0.0971	97	0.0949	95	71-133	2	35	mg/kg	11.20.2020 18:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	11.20.2020 18:18
4-Bromofluorobenzene	82		86		70-130	%	11.20.2020 18:18

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

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

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

Chain of Custody

Work Order No: 678521

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 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849 Email:		Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 442-443	Turn Around	
Project Number:	TE012920153	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.4/2.2	Thermometer ID	T-NM4-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	4	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	11/19/2020	1030	3'	1	X	X	X
FS02	S	11/19/2020	1040	4'	1	X	X	X
SW01	S	11/19/2020	1100	0-4'	1	X	X	X
SW02	S	11/19/2020	1120	0-3'	1	X	X	X

Work Order Notes

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

Sample Comments

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cloe Cuello	11.19.20 1517			
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.19.2020 03.17.00 PM

Work Order #: 678521

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

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#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: Cloe Clifton Date: 11.19.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.20.2020

Jessica Kramer

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 12987

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	12987	C-141

OCD Reviewer	Condition
chensley	None