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**

			Resp	onsible I alty	<b>y</b>		
Responsible	Party XTC	) Energy		OGRID 4	5380		
Contact Name Kyle Littrell				Contact Te	Contact Telephone 432-221-7331		
Contact ema	il Kyle_Lit	ttrell@xtoenergy.c	om	Incident #	(assigned by OCD)		
Contact mail	ing address	522 W. Mermod	, Carlsbad, NM 88	3220			
				of Release So	ource		
32.1	19297		2000000		- 103 019	887	
Latitude 32.1			(NAD 83 in dec	Longitude _ cimal degrees to 5 decim			
Sita Nama			,	Site Type			
Site Name PL					Cank Battery		
Date Release	Discovered	10/8/2020		API# (if app	licable)		
Unit Letter	Section	Township	Range	Coun	nty	]	
В	30	24S	30E	Edd	y		
Surface Owner		▼ Federal □ Tr	Nature and	l Volume of I		)	
ズ Crude Oil	<u>Materia</u> 	l(s) Released (Select al Volume Release		calculations or specific	Volume Reco	volumes provided below) vered (bbls)	
Produced	Water	Volume Release	2		Volume Recovered (bbls)		
			ion of total dissolv water >10,000 mg		Yes N	0	
Condensate Volume Released (bbls)				Volume Recovered (bbls)			
☐ Natural Gas Volume Released (Mcf)				Volume Recovered (Mcf)			
Other (de	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weig	tht Recovered (provide units)	
Cause of Rel	Eviden	lump line plugged ce was found indic I for remediation a	rating a sman fire t	g the flare scrubber that extinguished its	to fill with fluic self below the f	d and flow out of the flare stack. lare. A third party contractor has been	

Received by OCD: 12/23/2020 7:20:48 AMI State of New Mexico
Page 2 Oil Conservation Division

Page 200f 115

Incident ID NRM2030234533
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W/ 41-::	If VES formed at most of the state of the st	
Was this a major	If YES, for what reason(s) does the respon	
release as defined by 19.15.29.7(A) NMAC?	A small fire occurred at the base of the flan	e. Fire extinguished itself.
19.13.29.7(A) INMAC:		
X Yes ☐ No		
If YES, was immediate n	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
Yes, by Adrian Baker to "	Venegas, Victoria, EMNRD'; Bartels, Rober	t; 'Bratcher, Mike, EMNRD'; 'Griswold, Jim, EMNRD'; 'Morgan,
Crisha A'; 'CFO_Spill, BI	LM_NM' on Thursday, October 8, 2020 5:03	PM via email.
	I:4: -1 D	
	Initial Ro	esponse
The responsible	party must undertake the following actions immediatel	v unless they could create a safety hazard that would result in injury
<b>V</b> T	1 1	
	ease has been stopped.	
The impacted area ha	as been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or c	ikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and	d managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain v	why:
	d above have <u>nov</u> been undertaken, explain	viiy.
N/A		
Per 19.15.29.8 B. (4) NM	IAC the responsible party may commence r	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred
within a lined containmen	nt area (see 19.15.29.11(A)(5)(a) NMAC), p	lease attach all information needed for closure evaluation.
I hereby certify that the info	ermation given above is true and complete to the	pest of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger
		CD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of and/or regulations.	of a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
_	11	CHOEC :
Printed Name: Kyle Littr	reli	Title: SH&E Supervisor
a: b	12 / Huth	Date: 10-22-20
Signature:	Go Fittett	
email: Kyle_Littrell@xto	benergy.com	Telephone: 432-221-7331
OCD Only		
Received by: Ramona	Marcus	Date: 10/28/2020
Received by		Date. 10/20/2020

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

TOTAL VOLUME O	F LEAK
Total Crude Oil =	0.12 bbls
TOTAL VOLUME REC	OVERED
Total Crude Oil =	0.00 bbls

	Page 4 of 11:	5
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 <b>not</b> 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.

Ch	aracterization 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
$\times$	Photographs including date and GIS information
	Topographic/Aerial maps
X	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.

Received by OCD: 12/23/2020 7:20:48 AM Form C-141 State of New Mexico Page 4 Oil Conservation Division

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-p	aa	0	-5	ni	f 1	15	
	$u \in$		J	v		10	

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by the failed to adequately investigate and remediate contamination that pose a	the best of my knowledge and understand that pursuant to OCD rules and notifications and perform corrective actions for releases which may endanger the OCD does not relieve the operator of liability should their operations have threat to groundwater, surface water, human health or the environment. In or of responsibility for compliance with any other federal, state, or local laws
Printed Name: Kyle Littrell	Title: SH&E Supervisor
Signature: Filled	Date: 12/11/2020
email:Littrell@xtoenergy.com	Telephone: 432-221-7331
OCD Only	
Received by:	Date:

Page 6 of 115

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 NMA	AC
Photographs of the remediated site prior to backfill or photos of the limust be notified 2 days prior to liner inspection)	ner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC District	ct office must be notified 2 days prior to final sampling)
Description of remediation activities	
Signature: Date:	e notifications and perform corrective actions for releases which report by the OCD does not relieve the operator of liability contamination that pose a threat to groundwater, surface water, report does not relieve the operator of responsibility for the responsible party acknowledges they must substantially that existed prior to the release or their final land use in
OCD Only	
Received by: Chad Hensley	Date: 04/22/2021
Closure approval by the OCD does not relieve the responsible party of liabi remediate contamination that poses a threat to groundwater, surface water, h party of compliance with any other federal, state, or local laws and/or regul	numan health, or the environment nor does not relieve the responsible
Closure Approved by:	_Date:04/22/2021
Printed Name: Chad Hensley	Title: Environmental Specialist Advanced

wsp

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.

Ashley L. Ager

Managing Director, Geologist

cc: Kyle Littrell, XTO

Elizabeth Naha

Robert Hamlet, NMOCD Victoria Venegas, NMOCD

United States Bureau of Land Management – New Mexico

Attachments:



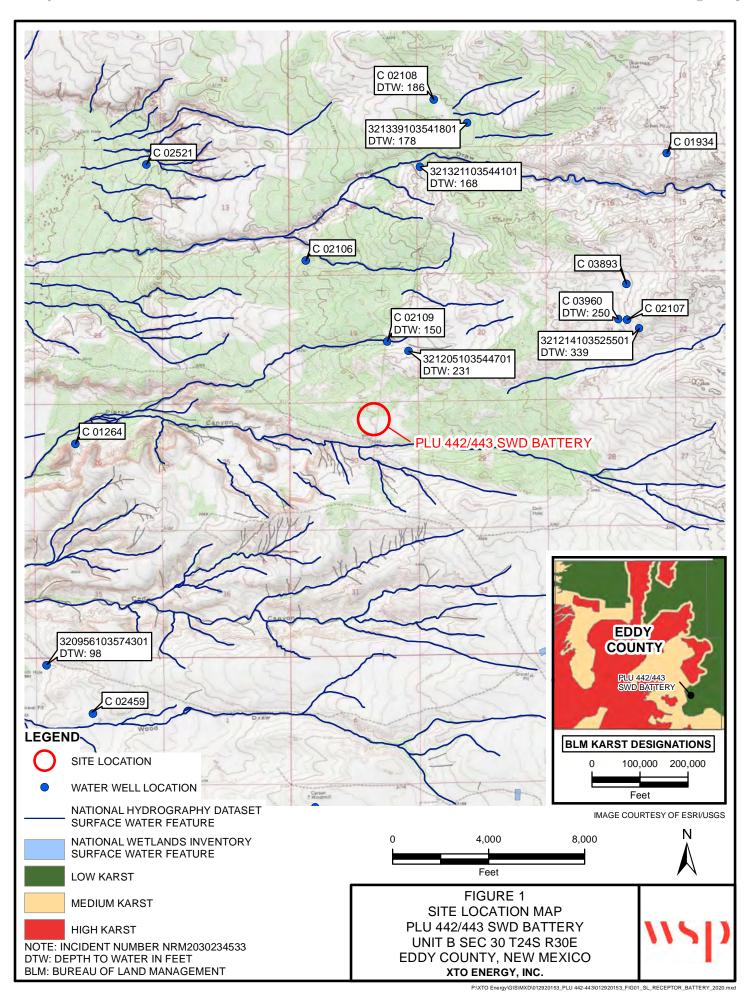
Figure 1 Site Location Map

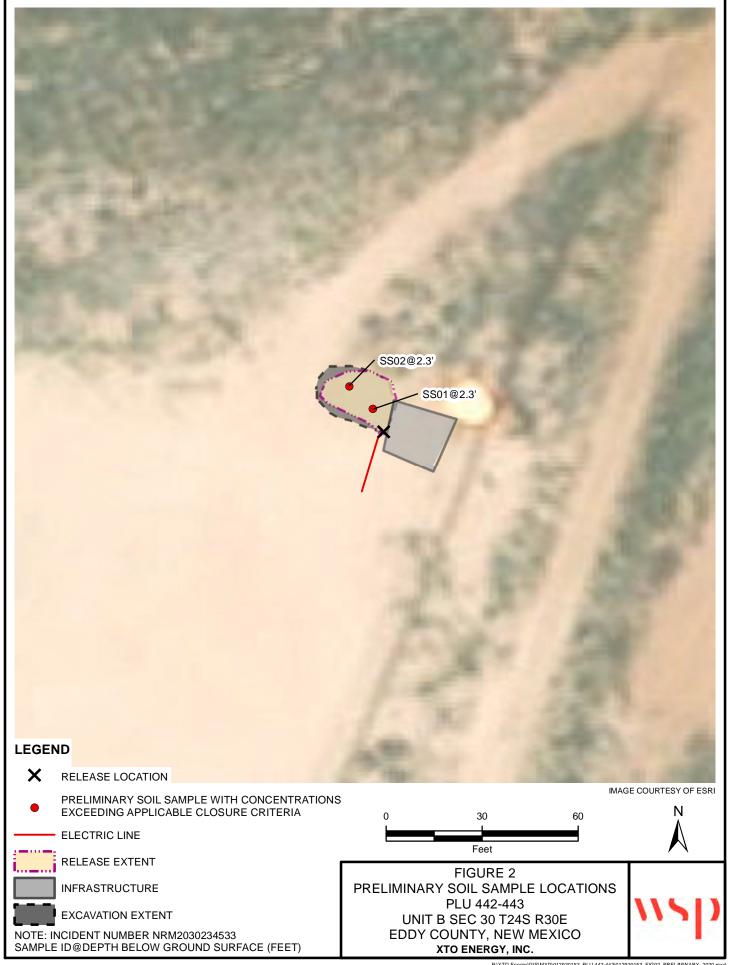
Figure 2 Preliminary Soil Sample Locations
Figure 3 Excavation Soil Sample Locations

Table 1 Soil Analytical Results Attachment 1 Referenced Well Records

Attachment 2 Photographic Log

Attachment 3 Laboratory Analytical Reports





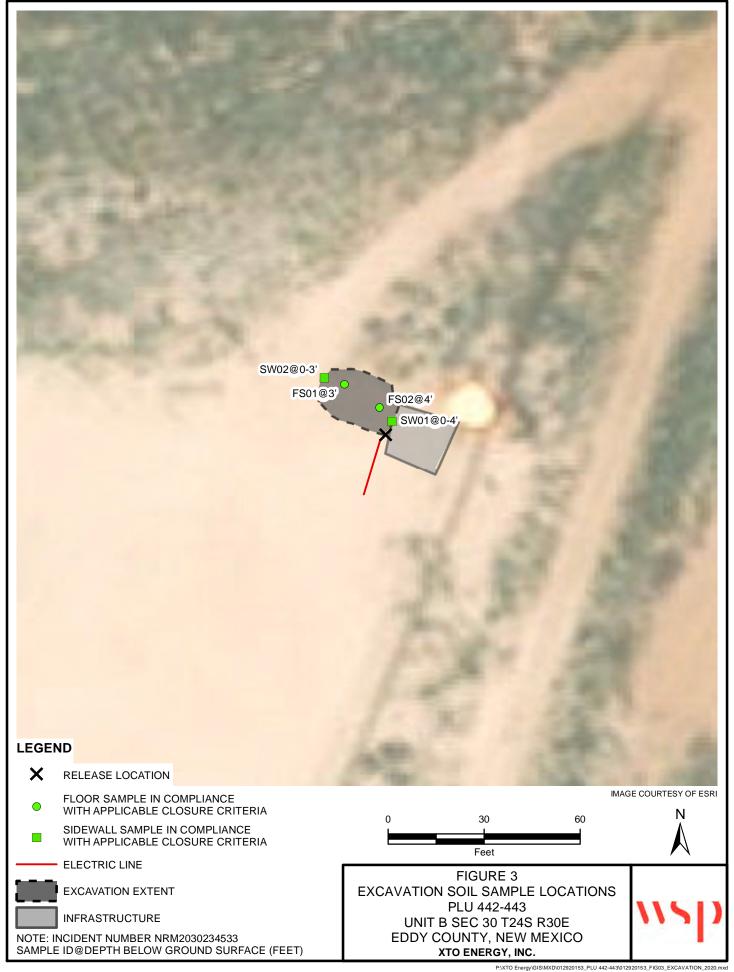


Table 1

#### 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 Cl	osure Criteria (NM	AC 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 Sa	mples									
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
<b>Excavation Sidewall</b>	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



## 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

UNKNOWN

 $\mathbf{X}$ 

C 02109

24S 30E 19

602130 3563412



**Driller License:** 

**Driller Company:** 

**Driller Name:** 

**Drill Finish Date:** 

12/31/1963

Plug Date:

**Drill Start 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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/26/20 3:31 PM

POINT OF DIVERSION SUMMARY



USGS Home Contact USGS Search USGS

### **National Water Information System: Web Interface**

**USGS** Water Resources

Data Category:		Geographic Area:		
Groundwater	~	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

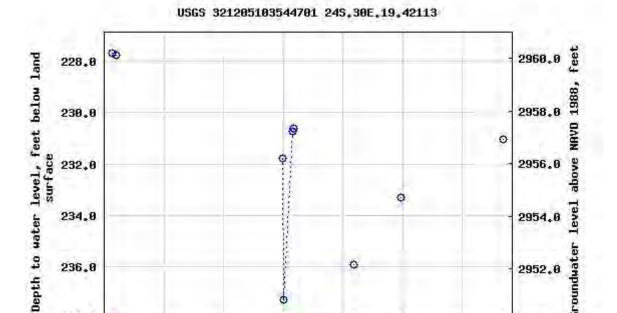
### USGS 321205103544701 24S.30E.19.42113

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**

<u>Table of data</u>	
<u>Tab-separated data</u>	
Graph of data	
Reselect period	



1976

1970

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

1988

1994

1982

- Period of approved data

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

1964

Accessibility

238.0

1958

FOIA

Privacy

Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

**Title: Groundwater for USA: Water Levels** 

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-26 17:31:08 EDT

0.61 0.51 nadww01





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

Photo No.	Date	
1	November 3, 2020	
	g around flare stack ag 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	NRM2030234533					
	Eddy County, New Mexico						

Photo No.	Date
2	November 19,
3	2020
View of excava	tion facing North



Photo No.	Date				
4	November 19,				
4	2020				
View of excavation facing East					



eurofins Environment Testing

## Certificate of Analysis Summary 676789

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

Project Id:

012920153

**Date Received in Lab:** Tue 11.03.2020 12:20

Contact:

Dan Moir

**Report Date:** 11.05.2020 10:52

**Project Location:** 

Eddy County, New Mexico

Project Manager: Jessica Kramer

	Lab Id:	676789-0	01	676789-0	002		
Analysis Requested	Field Id:	SS01		SS02			
Anaiysis Requesieu	Depth:	2.3- ft		2.3- ft			
	Matrix:	SOIL	SOIL				
	Sampled:	11.03.2020	11.03.2020 09:48		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		0.00198		
Toluene			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)	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

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

Jessica Wramer



## **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)



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

Project Manager

A Small Business and Minority Company

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

## **Sample Cross Reference 676789**

## LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	<b>Date Collected</b>	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

## **CASE NARRATIVE**

eurofins
Environment Testing
Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

 Project ID:
 012920153
 Report Date:
 11.05.2020

 Work Order Number(s):
 676789
 Date Received:
 11.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Xenco

## **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

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB Analyst: Seq Number: 3141308

Tech:

Date Prep:

% Moisture:

Basis: Wet Weight

Prep Method: SW8015P

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

Analytical Method: TPH by SW8015 Mod

Tech: MAB

CAC Analyst: Seq Number: 3141396

Date Prep:

11.04.2020 13:00

11.03.2020 17:13

% Moisture:

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	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

## **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: Basis:

Seq Number: 3141313

Cas Number	Result	RL	Units	<b>Analysis Date</b>	Flag	Dil
71-43-2	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
108-88-3	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
100-41-4	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
179601-23-1	< 0.00402	0.00402	mg/kg	11.04.2020 07:56	U	1
95-47-6	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
1330-20-7	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
	< 0.00201	0.00201	mg/kg	11.04.2020 07:56	U	1
	71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6	71-43-2 <0.00201 108-88-3 <0.00201 100-41-4 <0.00201 179601-23-1 <0.00402 95-47-6 <0.00201 1330-20-7 <0.00201	71-43-2	71-43-2	71-43-2	71-43-2

Surrogate	Cas Number	% Recovery	Units	Limits	<b>Analysis Date</b>	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	

Xenco

## **Certificate of Analytical Results 676789**

## LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id: **SS02** 

Matrix:

Date Received:11.03.2020 12:20

Lab Sample Id: 676789-002

Soil Date Collected: 11.03.2020 09:50

Sample Depth: 2.3 ft

Prep Method: E300P

Analytical Method: Chloride by EPA 300

Tech:

MAB

MAB Analyst: Seq Number: 3141308 Date Prep:

11.03.2020 17:13

% Moisture:

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

Tech:

MAB

CACAnalyst: Seq Number: 3141396

Date Prep:

11.04.2020 13:00

% Moisture:

Prep Method: SW8015P

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	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

## **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

Seq Number: 3141313

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	



## **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.

**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

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.

#### **QC Summary** 676789

### LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300

Seq Number: 3141308

7714459-1-BLK

Matrix: Solid

104

E300P Prep Method:

Date Prep: 11.03.2020

LCS Sample Id: 7714459-1-BKS MB Sample Id: Spike

Amount

250

LCSD Sample Id:

7714459-1-BSD

**Parameter** 

MB

LCS LCS Result %Rec

LCSD LCSD Result %Rec

Limits %RPD RPD Units Limit

Analysis Date

Flag

Chloride

Result <10.0

Parent

Result

578

261

260

90-110 104

0

mg/kg

11.03.2020 21:11

Analytical Method: Chloride by EPA 300

3141308

Matrix: Soil

Prep Method: Date Prep:

20

Prep Method:

20

Date Prep:

20

11.03.2020 MSD Sample Id: 676786-006 SD

E300P

Parent Sample Id: **Parameter** 

Seq Number:

Chloride

676786-006

MS Result

769

MS Sample Id:

MS %Rec

MSD Result 771

676786-006 S

MSD Limits %Rec

90-110

97

%RPD RPD Limit

0

Units Analysis

Flag Date

Analytical Method: Chloride by EPA 300 Seq Number:

3141308

494

Spike

200

Amount

Matrix: Soil

101

96

676812-002 S

101

LCSD

%Rec

E300P

mg/kg

11.03.2020

11.03.2020 22:44

11.03.2020 21:28

**Parameter** 

Parent Sample Id:

676812-002

Spike Parent Result Amount

12000

MS Result 12500

MS Sample Id:

MS MSD %Rec Result

**MSD** %Rec

Limits

90-110

**RPD** %RPD Limit

0

MSD Sample Id: 676812-002 SD Units

Analysis Flag Date

Chloride

Analytical Method: TPH by SW8015 Mod

3141396

7714497-1-BLK LCS Sample Id:

Spike

MB

Flag

Matrix: Solid

LCS

Flag

7714497-1-BKS

LCSD

Result

12500

Prep Method: Date Prep:

**RPD** 

Limit

SW8015P 11.04.2020

LCSD Sample Id: 7714497-1-BSD

Units

Units

%

%

mg/kg

**Parameter** 

Seq Number:

MB Sample Id:

Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)

Result Amount < 50.0 1000 < 50.0 1000

MB

%Rec

103

103

MB

%Rec 968 1090

LCS

Result

97 109

LCS

%Rec

132

108

LCS

934 1040

93 70-135 70-135 104 LCSD LCSD

%Rec

130

104

Flag

Limits

35 4 5 35

Limits

70-135

70-135

%RPD

mg/kg mg/kg

Date 11.04.2020 15:46 11.04.2020 15:46

Analysis

Analysis

Date

11.04.2020 15:46

11.04.2020 15:46

**Surrogate** 1-Chlorooctane

o-Terphenyl

Analytical Method: TPH by SW8015 Mod Seq Number:

3141396

Matrix: Solid

Prep Method:

SW8015P

11.04.2020

**Parameter** 

MBResult

MB Sample Id: 7714497-1-BLK

Date Prep:

Flag

Flag

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

Analysis Date 11.04.2020 15:25

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result = MSD/LCSD Result

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Flag

Flag

Flag

#### **QC Summary** 676789

### LT Environmental, Inc.

PLU 442-443

Analytical Method: TPH by SW8015 Mod Matrix: Soil

SW8015P Prep Method: Date Prep: 11.04.2020

Seq Number: 3141396 676786-001 Parent Sample Id:

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
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

3141313

Matrix: Solid

Prep Method:

SW5035A

Seq Number: MB Sample Id:

7714467-1-BLK

LCS Sample Id: 7714467-1-BKS

Date Prep: LCSD Sample Id: 7714467-1-BSD

11.03.2020

MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 11.03.2020 22:56 < 0.00200 0.100 0.0865 87 0.0906 70-130 5 35 Benzene 91 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 0.0889 71-133 11.03.2020 22:56 < 0.00200 0.100 0.0876 88 89 35 o-Xylene 1 mg/kg

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

Seq Number: 3141313 Parent Sample Id: 676778-009

Matrix: Soil MS Sample Id: 676778-009 S Prep Method:

SW5035A

Date Prep: 11.03.2020 MSD Sample Id: 676778-009 SD

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

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

Work Order No: 10716789

Page

of

Date/Time

7471 : Hg

Sample Comments received by 4:00pm **Preservative Codes** 

# **Eurofins Xenco, LLC**

### Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 11.03.2020 12.20.00 PM Air and Metal samples Acceptable Range: Ambient

Work Order #: 676789 Temperature Measuring device used : T\_NM\_007

Sam	ple 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/ co	ooler? 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/ re	ceived? Yes	
#10 Chain of Custody agrees with sample labels/n	natrix? 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	

<sup>\*</sup> Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Checklist completed by:

Cloe Clifton

Checklist reviewed by:

Jessica Warmer

Date: 11.03.2020

Date: 11.04.2020

PH Device/Lot#:

Analyst:

eurofins Environment Testing

# **Certificate of Analysis Summary 678521**

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

**Project Id: Contact:** 

TE012920153

Dan Moir

**Date Received in Lab:** Thu 11.19.2020 15:17

**Report Date:** 11.23.2020 10:07

Project Manager: Jessica Kramer **Project Location:** 

	Lab Id:	678521-001		678521-0	02	678521-0	003	678521-0	004		ļ
Analysis Requested	Field Id:	FS01		FS02		SW01		SW02			ļ
Analysis Requesieu	Depth:	3- ft		4- ft		0-4 ft		0-3 ft			ļ
	Matrix:	SOIL		SOIL		SOIL		SOIL			ļ
	Sampled:	11.19.2020	10:30	11.19.2020	11.19.2020 10:40		11.19.2020 11:00		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		ļ
	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

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

Jessica Weamer



# **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)



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

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 678521**

# LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	<b>Date Collected</b>	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**

eurofins
Environment Testing
Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

 Project ID:
 TE012920153
 Report Date:
 11.23.2020

 Work Order Number(s):
 678521
 Date Received:
 11.19.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

# **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: MA

Analyst:

MAB MAB

Date Prep:

11.20.2020 15:00

% Moisture:

Basis:

Wet Weight

Seq Number: 3142939

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 Seq Number: 3142933 Date Prep: 11.20.2020 10:00

% Moisture:

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	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

# **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: Basis:

Seq Number: 3142935

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	

Xenco

# **Certificate of Analytical Results 678521**

### LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id: **FS02** Lab Sample Id: 678521-002

Date Received:11.19.2020 15:17

Soil Date Collected: 11.19.2020 10:40

Sample Depth: 4 ft

Prep Method: E300P

MAB Tech:

Analyst:

MAB

Analytical Method: Chloride by EPA 300

Date Prep:

Matrix:

% Moisture: 11.20.2020 15:00

Basis: Wet Weight

Seq Number: 3142939

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

CAC Analyst: Seq Number: 3142933

Date Prep: 11.20.2020 10:00 % Moisture:

Prep Method: SW8015P

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		as Number 0	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

# **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:

Analyst. MAB Date Prep: 11.20.2020 10:38 Basis:

Parameter	Cas Numbe	r Result	RL		Units	<b>Analysis Date</b>	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		

Xenco

## **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

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB Tech:

MAB Analyst:

Date Prep: 11.20.2020 15:00 % Moisture:

Basis: Wet Weight

Seq Number: 3142939

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

Analyst: Seq Number: 3142933

CAC

Date Prep:

11.20.2020 10:00

% Moisture:

Prep Method: SW8015P

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	C	as Number (	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate 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

Wet Weight

# **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: Basis:

Seq Number: 3142935

Parameter	Cas Number	Result	RL	Units	<b>Analysis Date</b>	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	<b>Analysis Date</b>	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	

Xenco

# **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

Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB

MAB Analyst: Seq Number: 3142939

Tech:

Date Prep: 11.20.2020 15:00 % Moisture:

Basis:

Wet Weight

Prep Method: SW8015P

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

CAC Analyst: Seq Number: 3142933 Date Prep:

11.20.2020 10:00

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	r 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	

Surrogate	Cas Number	% Recovery	Units	Limits	<b>Analysis Date</b>
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

Wet Weight

11.21.2020 03:14

70-130

# **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

460-00-4

Seq Number: 3142935

4-Bromofluorobenzene

Parameter	Cas Number	Result	RL		Units	<b>Analysis Date</b>	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		

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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.

**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

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.

#### **QC Summary** 678521

### LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300

Seq Number: 3142939

7715681-1-BLK

Matrix: Solid LCS Sample Id:

E300P Prep Method: Date Prep: 11.20.2020

7715681-1-BKS LCSD Sample Id: 7715681-1-BSD

LCS RPD MB Spike LCS Limits %RPD Units Analysis LCSD LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 253 101 253 90-110 0 20 11.20.2020 20:19 101 mg/kg

Analytical Method: Chloride by EPA 300

Seq Number: 3142939 Matrix: Soil

Prep Method: Date Prep:

E300P 11.20.2020

678519-001 Parent Sample Id:

678519-001 S MS Sample Id:

MSD Sample Id: 678519-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result

11.20.2020 20:35 Chloride 13.3 199 217 102 219 103 90-110 1 20 mg/kg

Analytical Method: Chloride by EPA 300

3142939 Seq Number:

Matrix: Soil

Prep Method:

E300P

Parent Sample Id:

678523-001

MS Sample Id: 678523-001 S Date Prep: 11.20.2020

MSD Sample Id: 678523-001 SD

**Parameter** 

MB Sample Id:

Spike **Parent** Result Amount

MS MS

MSD **MSD** %Rec

%RPD Limits

Units

Analysis Flag

Chloride

358 200 Result %Rec 567 105 Result 565

104 90-110

Limit 20 0

**RPD** 

mg/kg

Date 11.20.2020 21:47

Flag

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number:

3142933

Matrix: Solid

Prep Method:

SW8015P

Date Prep: 11.20.2020

MB Sample Id: 7715676-1-BLK LCS Sample Id: 7715676-1-BKS LCSD Sample Id: 7715676-1-BSD

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

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3142933 Matrix: Solid

Prep Method:

SW8015P

Date Prep: 11.20.2020

MB Sample Id: 7715676-1-BLK

**Parameter** 

MBResult

Analysis

Motor Oil Range Hydrocarbons (MRO)

< 50.0

mg/kg

Units

Date 11.20.2020 11:46

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result

= MSD/LCSD Result

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

Flag

Flag

Flag

#### **QC Summary** 678521

### LT Environmental, Inc.

PLU 442-443

678519-001 S

Analytical Method: TPH by SW8015 Mod

Seg Number: 3142933

Parent Sample Id:

678519-001

Matrix: Soil

SW8015P Prep Method:

Date Prep: 11.20.2020 MSD Sample Id: 678519-001 SD

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

MS Sample Id:

70-135 11.20.2020 13:06 Diesel Range Organics (DRO) < 50.2 1000 1220 122 1130 8 35 mg/kg 113

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

SW5035A Analytical Method: BTEX by EPA 8021B Prep Method:

3142935 Seq Number: Matrix: Solid Date Prep: 11.20.2020 LCS Sample Id: 7715671-1-BKS LCSD Sample Id: 7715671-1-BSD MB Sample Id: 7715671-1-BLK

MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 11.20.2020 17:33 < 0.00200 0.100 0.113113 0.103 9 35 Benzene 103 70-130 mg/kg 11.20.2020 17:33 Toluene < 0.00200 0.100 0.106 106 0.0970 97 70-130 9 35 mg/kg Ethylbenzene 0.100 0.0969 97 0.0897 90 71-129 8 35 11.20.2020 17:33 < 0.00200 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 < 0.00200 0.100 0.0965 97 0.0909 91 71-133 35 o-Xylene 6 mg/kg

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

SW5035A Analytical Method: BTEX by EPA 8021B Prep Method:

Seq Number: 3142935 Matrix: Soil Date Prep: 11.20.2020 678524-003 MS Sample Id: 678524-003 S MSD Sample Id: 678524-003 SD Parent Sample Id:

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

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

97

0.0949

71-133

95

2

35

mg/kg

11.20.2020 18:18

o-Xylene

< 0.00200

0.0998

0.0971

= MSD/LCSD Result



						Ω	air	of	Chain of Custody	tod					5	lork (	Order	No:	43	Work Order No: 67852/
X	DRATORE	U		Houston, 7 Midland,	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	200 Dal 440) EL	as,TX (	214) 90 X (915)	2-0300 Sa 585-3443	n Antonio Lubbock,	TX (210)	509-33 94-129	6 34							
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	3300 North A Street	et			Address:		3104 E	ast Gn	3104 East Green Street	^			60	State of Project:	Project	[	5		C	
City, State ZIP: Mi	Midland, TX 79705	5			City, State ZIP:		Carlsb	ad, NM	Carlsbad, NM 88220				Rep	Reporting:Level II	vel II	Level	Level III ST/UST	ST/UST	RRP	P   evel IV
Phone: (4:	(432) 236-3849			Email:	Spencer.Lo@wsp.com.Kalei.Jennings@wsp.com.Dan.Moir@w	wsp.cor	n, Kalei.	Jenning	s@wsp.c	om.Dan.I	/loir@ws	/sp.com	Deli	Deliverables: EDD	: EDD		ADaPT	PT [	[	Other:
Project Name:	PLL	PLU 442-443		Tur	Turn Around	Ī				AN	ANALYSIS	REQ	S REQUEST				H		Work	Work Order Notes
Project Number:	TE0	TE012920153		Routine	ne /				-											
P.O. Number:				Rush:				_	_									_		
Sampler's Name:	Spe	Spencer Lo		Due Date	)ate:															
SAMPLE RECEIPT	Temp Blank:		Yes No	Wet Ice:	€ No	S							_							
Temperature (°C):	3/F.C			[		iner			))											
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Sample Identification		Matrix Sar	Date Sampled S	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride								-		Sampl	Sample Comments
FS01	S	11/1	_	1030	ယ္	_	×		×		-	+	1			-	+			
FS02	S	11/1	11/19/2020	1040	4'	_	×	×	×											
SW01	S	11/1	11/19/2020	1100	0-4"	1	×	×	×			-								
SW02	S	11/1	11/19/2020	1120	0-3'	_	×	×	×			8								
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Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: nd Metal(s) to be	0: be analyze	8	A 13PPM	CRA 13PPM Texas 11 AI		Sb As Sb As	Ba Be Ba Be	0 8	Cd Ca Cr	Co Cu	Fe F	Co Cu Fe Pb Mg Mn Mo Ni K tu Pb Mn Mo Ni Se Ag Tl U	Mn Mo	⊂ <u>Z</u>	Se Ag	SiC	Na Sr 631 / 246	r TI SI	)2 Na Sr Tl Sn U V Zn 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.	ment and relinquishred only for the cost of sf. \$75.00 will be app	nent of sampl samples and lied to each p	les constitute shall not ass project and a	es a valid purc sume any resp charge of \$5 f	chase order from consibility for an or each sample :	client c y losses submitte	ompany or expe	to Xence nses inc	o, its affiliat urred by th not analyze	es and sut e client if s d. These te	contracto uch losse: rms will b	rs. It as are due enforc	signs stan e to circum ed unless	dard term stances b	s and co eyond th negotial	nditions e control ed.				
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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

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

Work Order #: 678521

Analyst:

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	

<sup>\*</sup> Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Checklist completed by:

Cloe Clifton

Checklist reviewed by:

Jessica Kramer

Date: 11.19.2020

Date: 11.20.2020

PH Device/Lot#:

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**

			resp		J		
Responsible Party XTO Energy				OGRID	OGRID 5380		
Contact Name Kyle Littrell				Contact Te	Contact Telephone 432-221-7331		
Contact email	Kyle_Lit	trell@xtoenergy.c	com	Incident #	(assigned by OCD)	)	
Contact mailin	ng address	522 W. Mermod	, Carlsbad, NM 88	3220			
			Location	of Release So	ource		
Latitude 32.19	297			Longitude _	- 103.91	887	
			(NAD 83 in dec	cimal degrees to 5 decin	nal places)		
Site Name PLU	J 442-443			Site Type T	Tank Battery		
Date Release D		10/8/2020		API# (if app			
Unit Letter	Section	Township	Range	Coun	nty		
В	30	24S	30E	30E Eddy			
Surface Owner	☐ State	▼ Federal □ Ti	ribal 🔲 Private ( <i>1</i>	Vame ·		)	
surface owner.		redefai 11	Tiour 🗀 Trivate (1	<i></i>			
			Nature and	l Volume of I	Release		
	Materia	l(s) Released (Select a	II that apply and attach	calculations or specific	justification for the	e volumes provided below)	
X Crude Oil		Volume Release			Volume Recovered (bbls)		
Produced V	Vater	Volume Release	ume Released (bbls)		Volume Recovered (bbls)		
			tion of total dissolv		Yes N	No	
Condensate		in the produced Volume Release	water >10,000 mg	:/1?	Voluma Pace	ovarad (hhls)	
					Volume Recovered (bbls)		
Natural Gas Volume Released (Mcf)			Volume Recovered (Mcf)				
Other (describe) Volume/Weight Released (provide un		e units)	Volume/Weig	ght Recovered (provide units)			
C CD 1							
Cause of Relea	water c	lump line plugged	with scale causing	g the flare scrubber	to fill with flui	id and flow out of the flare stack.	
		ce was found indic I for remediation a		that extinguished it	self below the f	flare. A third party contractor has been	
	101111100	- 101 101110011011 t					

Received by OCD: 12/23/2020 7:20:48 AM State of New Mexico
Page 2 Oil Conservation Division

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- 1	uz	64		v.	UE II	
	_ 0				=/	

Incident ID	NRM2030234533
District RP	
Facility ID	
Application ID	

Was this a major	If YES, for what reason(s) does the respon	· ·
release as defined by	A small fire occurred at the base of the flat	re. Fire extinguished itself.
19.15.29.7(A) NMAC?		
X Yes □ No		
Z res _ no		
If YES, was immediate n	otice given to the OCD? By whom? To wh	nom? When and by what means (phone, email, etc)?
		rt; 'Bratcher, Mike, EMNRD'; 'Griswold, Jim, EMNRD'; 'Morgan,
Crisha A'; 'CFO_Spill, BI	LM_NM' on Thursday, October 8, 2020 5:03	3 PM via email.
	Initial R	esponse
		o po not
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
The impacted area ha	is been secured to protect human health and	the environment.
_ •	*	likes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed an	d managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, explain	why:
N/A		
Per 19 15 29 8 B (4) NM	IAC the responsible party may commence r	emediation immediately after discovery of a release. If remediation
		efforts have been successfully completed or if the release occurred
		please attach all information needed for closure evaluation.
Lharaby cartify that the info	rmation given above is true and complete to the	best of my knowledge and understand that pursuant to OCD rules and
		fications and perform corrective actions for releases which may endanger
		OCD does not relieve the operator of liability should their operations have
		at to groundwater, surface water, human health or the environment. In
	f 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 Littr	·ell	Title: SH&E Supervisor
2.	10 Sunt	
Signature:	Je Hithett	Date:
email: Kyle_Littrell@xto	penergy.com	Telephone: 432-221-7331
oman.		Telephone.
OCD O I		
OCD Only		
Received by: Ramona	Marcus	Date: <u>10/28/2020</u>
·· · · <b>J</b> · ·		

Location:	PLU 442-443			
Spill Date:	10/8/2020			
	Area 1			
Approximate A	rea =	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			

	Page 61 of 11	15
Incident ID	NRM2030234533	
District RP	111111111	
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 <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ☒ No
Attach a comprehensive report (electronic submittals in .ndf format are preferred) demonstrating the lateral and year	rtical automic of soil

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.

Received by OCD: 12/23/2020 7:20:48 AM Form C-141 State of New Mexico Page 4 Oil Conservation Division

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Page	620	f 115
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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: Tellub	Date: 1 <u>2/11/2020</u>			
email:	Telephone: 432-221-7331			
OCD Only				
Received by:	Date:			

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Incident ID	NRM2030234533
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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:    SH&E Supervisor		
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:		
Printed Name: Chad Hensley	Title:Environmental Specialist Advanced	

wsp

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.

Ashley L. Ager

Managing Director, Geologist

cc: Kyle Littrell, XTO

Elizabeth Naha

Robert Hamlet, NMOCD Victoria Venegas, NMOCD

United States Bureau of Land Management – New Mexico

Attachments:



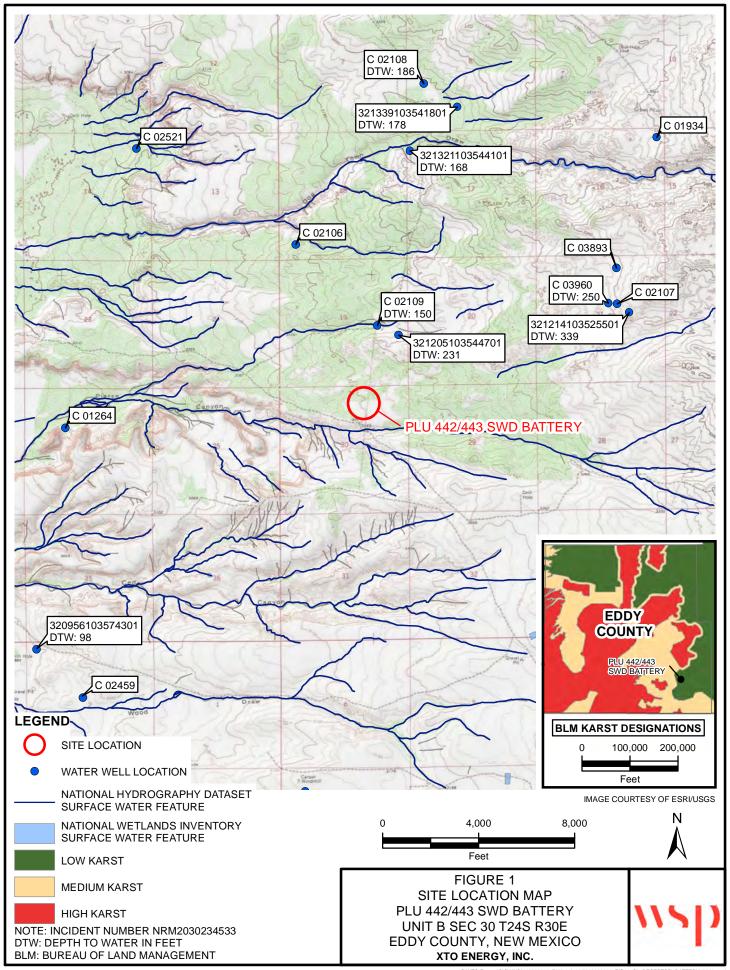
Figure 1 Site Location Map

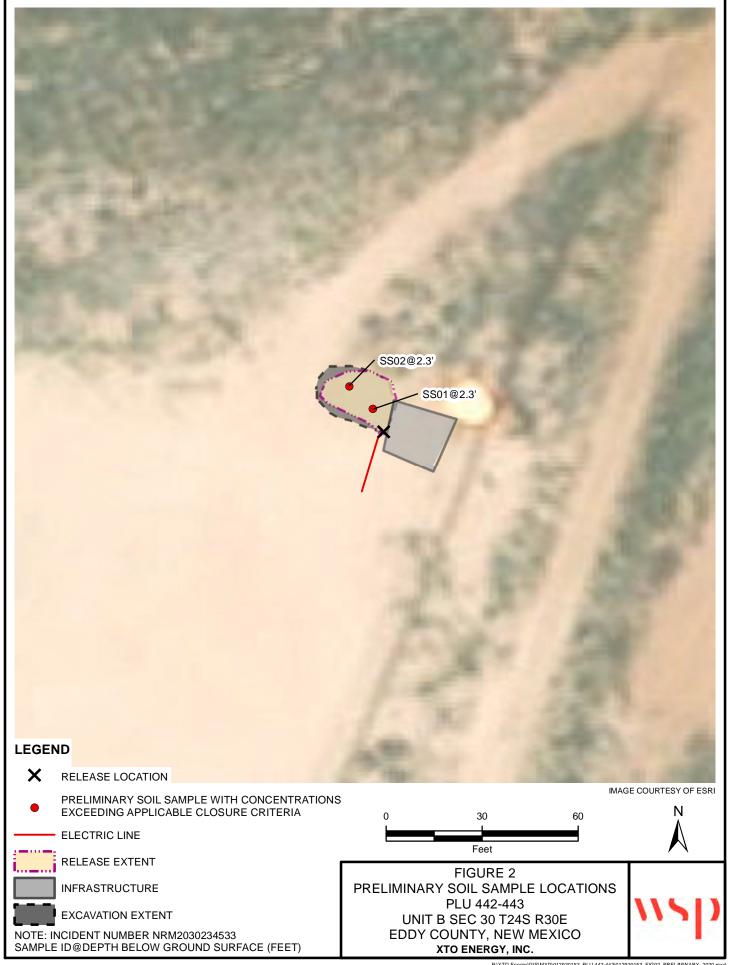
Figure 2 Preliminary Soil Sample Locations
Figure 3 Excavation Soil Sample Locations

Table 1 Soil Analytical Results Attachment 1 Referenced Well Records

Attachment 2 Photographic Log

Attachment 3 Laboratory Analytical Reports





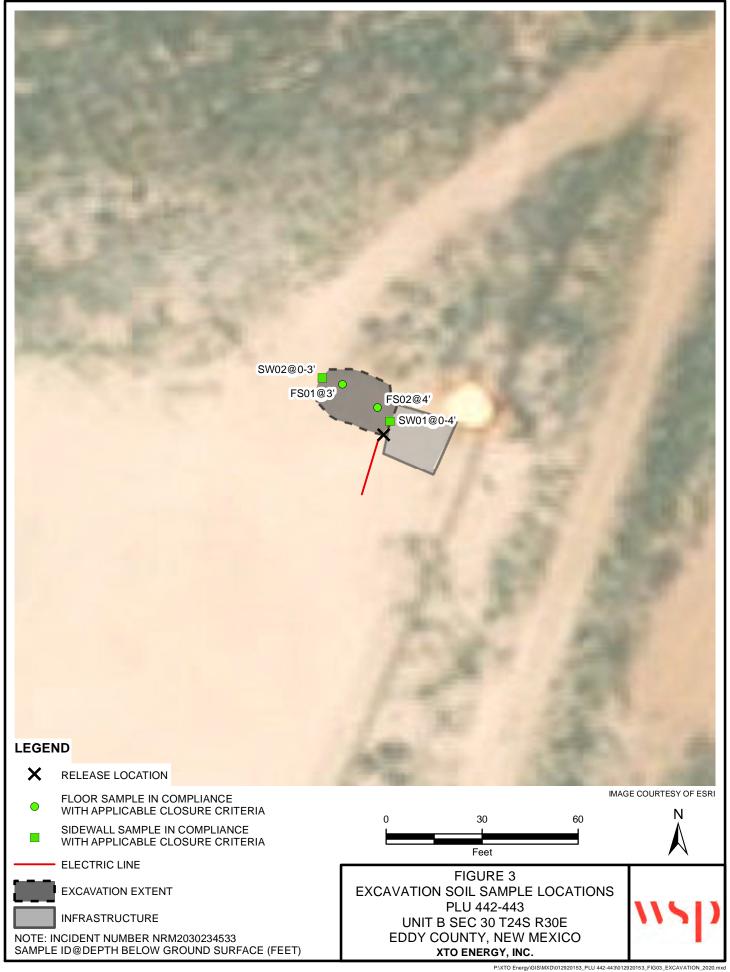


Table 1

#### 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 San	mples									
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



# 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

C 02109

 $\mathbf{X}$ 

24S 30E 19

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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/26/20 3:31 PM

POINT OF DIVERSION SUMMARY



USGS Home Contact USGS Search USGS

## **National Water Information System: Web Interface**

**USGS** Water Resources

Data Category:		Geographic Area:		
Groundwater	~	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

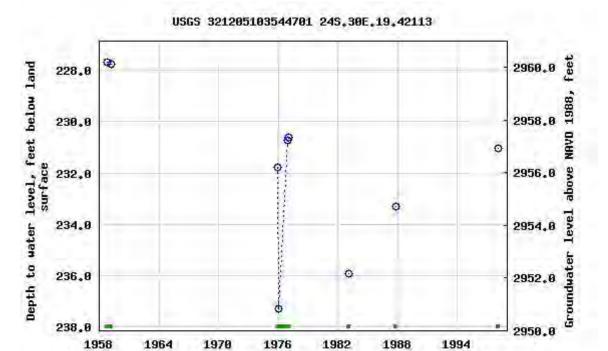
## USGS 321205103544701 24S.30E.19.42113

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



- Period of approved data

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

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

Accessibility

FOIA

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Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

**Title: Groundwater for USA: Water Levels** 

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2020-10-26 17:31:08 EDT

0.61 0.51 nadww01





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

Photo No.	Date	
1	November 3, 2020	
	around flare stack g East.	

Photo No. Date

November 3, 2020

View of staining around flare stack facing North.





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

Photo No.	Date			
3	November 19,			
3	2020			
View of excavation facing North				



Photo No.	Date
4	November 19,
4	2020
View of excava	tion facing East.



eurofins Environment Testing

# **Certificate of Analysis Summary 676789**

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

**Project Id:** 

012920153

**Date Received in Lab:** Tue 11.03.2020 12:20

**Contact:** 

Dan Moir

**Report Date:** 11.05.2020 10:52

**Project Location:** 

Eddy County, New Mexico

Project Manager: Jessica Kramer

	Lab Id:	676789-00	01	676789-0	002		
Analusia Daguastad	Field Id:	SS01		SS02			
Analysis Requested	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	< 0.00198	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 2	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

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

Jessica Vramer



# **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)



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

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 676789**

# LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	<b>Date Collected</b>	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

## **CASE NARRATIVE**

eurofins Environment Testing Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

 Project ID:
 012920153
 Report Date:
 11.05.2020

 Work Order Number(s):
 676789
 Date Received:
 11.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

# **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

MAB Analyst:

Seq Number: 3141308

Date Prep:

11.03.2020 17:13

% Moisture:

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

Tech: MAB

CACAnalyst: Seq Number: 3141396 Date Prep:

11.04.2020 13:00

% Moisture:

Prep Method: SW8015P

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	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

# **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

% Moisture: MAB Analyst: Date Prep: 11.03.2020 16:11 Basis:

Seq Number: 3141313

Parameter	Cas Number	Result RL	Units	Analysis Date	Flag	Dil
Bed Number. 31	1313					

Surrogate 4-Bromofluorobenzene		Cas Number 460-00-4	% Recovery	Units %	<b>Limits</b> 70-130	<b>Analysis Date</b> 11.04.2020 07:56	Flag	
Total BTEX		< 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
o-Xylene	95-47-6	< 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
Ethylbenzene	100-41-4	< 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
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	11.04.2020 07:56	U	1

Xenco

# **Certificate of Analytical Results 676789**

## LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id: **SS02**  Matrix:

Date Received:11.03.2020 12:20

Lab Sample Id: 676789-002

Soil Date Collected: 11.03.2020 09:50

Sample Depth: 2.3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech:

MAB

MAB Analyst:

Date Prep:

11.03.2020 17:13

% Moisture:

Basis: Wet Weight

Seq Number: 3141308

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

CAC Analyst: Seq Number: 3141396 Date Prep:

11.04.2020 13:00

% Moisture:

Prep Method: SW8015P

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	C	as Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

# **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

% Moisture: MAB Analyst: Date Prep: 11.03.2020 16:11 Basis:

Seq Number: 3141313

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	



# **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.

**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

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.

Flag

#### **QC Summary** 676789

#### LT Environmental, Inc.

PLU 442-443

LCSD

Analytical Method: Chloride by EPA 300

Seq Number: 3141308

MB Sample Id:

7714459-1-BLK

MB

12000

Spike

Matrix: Solid

LCS

E300P Prep Method:

RPD

%RPD

Date Prep: 11.03.2020

7714459-1-BSD

Units

LCS Sample Id: 7714459-1-BKS LCSD Sample Id:

LCSD

Limits

**Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 104 90-110 0 20 11.03.2020 21:11 261 260 104 mg/kg

LCS

Analytical Method: Chloride by EPA 300

Seq Number: 3141308

Matrix: Soil

Prep Method: Date Prep: 11.03.2020

E300P

Analysis

676786-006 S 676786-006 MS Sample Id: Parent Sample Id:

12500

MSD Sample Id: 676786-006 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Units Analysis **Parameter** Flag Result Amount Result %Rec %Rec Limit Date Result

11.03.2020 21:28 Chloride 578 200 769 96 771 97 90-110 0 20 mg/kg

Analytical Method: Chloride by EPA 300

3141308 Seq Number:

Matrix: Soil

494

Prep Method:

E300P

Date Prep: 11.03.2020 MS Sample Id: 676812-002 S Parent Sample Id: 676812-002

MSD Sample Id: 676812-002 SD

mg/kg

Spike **RPD** MS MS %RPD Units Parent MSD **MSD** Limits Analysis Flag **Parameter** Result Result Limit Date Amount %Rec Result %Rec

12500

101

90-110

Analytical Method: TPH by SW8015 Mod Seq Number:

Chloride

Matrix: Solid

101

Prep Method:

20

0

SW8015P

11.03.2020 22:44

Flag

Flag

3141396 Date Prep: 11.04.2020

MB Sample Id: 7714497-1-BLK LCS Sample Id: 7714497-1-BKS LCSD Sample Id: 7714497-1-BSD

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

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

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141396 Matrix: Solid

Prep Method:

SW8015P

MS = Matrix Spike

B = Spike Added

D = MSD/LCSD % Rec

Date Prep: 11.04.2020

MB Sample Id: 7714497-1-BLK

**Parameter** 

MBResult

Units

Analysis Date

Motor Oil Range Hydrocarbons (MRO) < 50.0

mg/kg

11.04.2020 15:25

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result

= MSD/LCSD Result

Flag

Flag

Flag

#### **QC Summary** 676789

#### LT Environmental, Inc.

PLU 442-443

676786-001 S

958

Analytical Method: TPH by SW8015 Mod

Seg Number: 3141396

Diesel Range Organics (DRO)

Seq Number:

676786-001

Matrix: Soil

937

SW8015P Prep Method:

Date Prep:

35

MSD Sample Id: 676786-001 SD

mg/kg

11.04.2020

11.04.2020 16:46

MS Sample Id: Parent Sample Id: RPD **Parent** Spike MS MS Limits %RPD Units Analysis MSD MSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date Gasoline Range Hydrocarbons (GRO) < 50.0 999 35 11.04.2020 16:46 856 86 849 85 70-135 1 mg/kg

94

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

Analytical Method: BTEX by EPA 8021B

3141313

Matrix: Solid

999

Prep Method:

SW5035A

Date Prep: 11.03.2020

LCS Sample Id: 7714467-1-BKS MB Sample Id: 7714467-1-BLK

< 50.0

70-135

96

2

LCSD Sample Id: 7714467-1-BSD

MB Spike LCS LCS LCSD Limits %RPD **RPD** Units Analysis LCSD **Parameter** Result Amount Result %Rec Result %Rec Limit Date 11.03.2020 22:56 < 0.00200 0.100 0.0865 87 0.0906 70-130 5 35 Benzene 91 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 0.100 0.0856 86 0.0907 91 71-129 35 < 0.00200 6 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

0.100 11.03.2020 22:56 < 0.00200 0.0876 0.0889 71-133 35 o-Xylene 89 mg/kg MB MB LCS LCS LCSD Limits LCSD Units Analysis Surrogate %Rec Flag %Rec Flag Flag Date %Rec 11.03.2020 22:56 1,4-Difluorobenzene 102 97 102 70-130 % 104 70-130 % 11.03.2020 22:56 4-Bromofluorobenzene 108 110

88

Analytical Method: BTEX by EPA 8021B

Seq Number: 3141313 Parent Sample Id:

676778-009

SW5035A Prep Method:

Date Prep: 11.03.2020

MSD Sample Id: 676778-009 SD

RPD Parent Spike MS MS MSD **MSD** Limits %RPD Units Analysis **Parameter** Limit Date Result Amount Result %Rec %Rec Result 11.03.2020 23:41 < 0.00199 0.09940.100 101 0.108 70-130 8 35 Benzene 108 mg/kg 11.03.2020 23:41 70-130 35 Toluene < 0.00199 0.0994 0.0891 90 0.0983 99 10 mg/kg Ethylbenzene < 0.00199 0.0994 0.0862 87 0.100 100 71-129 15 35 11.03.2020 23:41 mg/kg 35 11.03.2020 23:41 m,p-Xylenes < 0.00398 0.199 0.173 87 0.203 102 70-135 16 mg/kg < 0.00199 0.0994 0.0918 92 0.102 71-133 11 35 mg/kg 11.03.2020 23:41 o-Xylene 102

Matrix: Soil

676778-009 S

MS Sample Id:

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

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

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

Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample = Parent Result

= MS/LCS Result = MSD/LCSD Result

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

Date/Time

7471 : Hg

of

# **Eurofins Xenco, LLC**

# Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

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

Date/ Time Received: 11.03.2020 12.20.00 PM

Temperature Measuring device used: T\_NM\_007

Date: 11.04.2020

Work Order #: 676789

Analyst:

S	ample 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 containe	r/ 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	d/ received?	Yes	
#10 Chain of Custody agrees with sample labe	els/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 tes	st(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero headspace	e?	N/A	

Must be completed for	r after-hours deliver	v of samples prior to	placing in the refrigerato
Must be combleted to	aitei-ilouis delivei	V OI SAIIIDIES DI IOI LO	Diacilia ili tile rell'iderato

Checklist completed by:	Cloe Clifton	Date: <u>11.03.2020</u>
Chacklist raviowed by:	laccion VRAMER	

Jessica Kramer

PH Device/Lot#:

eurofins Environment Testing

### Page 97 of 115

# **Certificate of Analysis Summary 678521**

LT Environmental, Inc., Arvada, CO

Project Name: PLU 442-443

**Project Id:** 

**Contact:** 

TE012920153

Dan Moir

**Date Received in Lab:** Thu 11.19.2020 15:17

**Report Date:** 11.23.2020 10:07

Project Location:								P	roject M	anager: Jessica k	Kramer
	Lab Id:	678521-0	001	678521-0	02	678521-0	003	678521-	004		
A sa mlunia D a ma anta d	Field Id:	FS01		FS02		SW01		SW02			
Analysis Requested	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

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

Jessica Weamer



# **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)



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

Project Manager

A Small Business and Minority Company

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

# **Sample Cross Reference 678521**

# LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id	Matrix	<b>Date Collected</b>	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

## Page 101 of 115

### **CASE NARRATIVE**

eurofins

Environment Testing
Xenco

Client Name: LT Environmental, Inc.

Project Name: PLU 442-443

 Project ID:
 TE012920153
 Report Date:
 11.23.2020

 Work Order Number(s):
 678521
 Date Received:
 11.19.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Xenco

**Environment Testing** 

# 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: N

Analyst:

MAB 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 Seq Number: 3142933 Date Prep: 11.20.2020 10:00

% Moisture:

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	

Surrogate	Cas Number	% Recovery	Units	Limits	<b>Analysis Date</b>
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

Wet Weight

# **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

Seq Number: 3142935

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	

Xenco

**Environment Testing** 

# **Certificate of Analytical Results 678521**

## LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id: **FS02**  Matrix:

Date Received:11.19.2020 15:17

Lab Sample Id: 678521-002

Soil Date Collected: 11.19.2020 10:40

Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech:

Seq Number: 3142939

Analyst:

MAB

MAB

Date Prep: 11.20.2020 15:00 % Moisture:

Basis: Wet Weight

Prep Method: SW8015P

Prep Method: E300P

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

Analyst: Seq Number: 3142933

CAC

Date Prep:

11.20.2020 10:00

% Moisture:

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	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight



# **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

Seq Number: 3142935

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	<b>Analysis Date</b>	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	

Xenco

# **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

D....

Prep Method: E300P

Tech: Analyst: MAB

MAB

Date Prep:

11.20.2020 15:00

% Moisture:

Basis:

Wet Weight

Seq Number: 3142939

 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: Analyst: MAB

CAC

Seq Number: 3142933

Date Prep:

11.20.2020 10:00

% Moisture:

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	

Surrogate	Cas Number	% Recovery	Units	Limits	<b>Analysis Date</b>
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

# **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

Seq Number: 3142935

Parameter	Cas Numbe	r Result	RL		Units	<b>Analysis Date</b>	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		

Xenco

# **Certificate of Analytical Results 678521**

## LT Environmental, Inc., Arvada, CO

PLU 442-443

Sample Id: **SW02** 

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 Prep Method: E300P

Analytical Method: Chloride by EPA 300

MAB Tech:

Analyst:

MAB

Date Prep:

Matrix:

11.20.2020 15:00

% Moisture:

Basis: Wet Weight

Seq Number: 3142939

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

Analytical Method: TPH by SW8015 Mod

Tech:

MAB

CAC Analyst: Seq Number: 3142933 Date Prep:

11.20.2020 10:00

% Moisture:

Prep Method: SW8015P

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	(	'as Number (	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date
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

Wet Weight

Xenco

# **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

Seq Number: 3142935

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	<b>Analysis Date</b>	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	



# **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.

**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

<sup>\*\*</sup> Surrogate recovered outside laboratory control limit.

Flag

#### **QC Summary** 678521

#### eurofins **Environment Testing** Xenco

#### LT Environmental, Inc.

PLU 442-443

Analytical Method: Chloride by EPA 300

E300P Prep Method:

Seq Number: 3142939 Matrix: Solid Date Prep: 11.20.2020 LCS Sample Id: 7715681-1-BKS LCSD Sample Id: 7715681-1-BSD MB Sample Id: 7715681-1-BLK

LCS RPD MB Spike LCS Limits %RPD Units Analysis LCSD LCSD Flag **Parameter** Result Amount Result %Rec Result %Rec Limit Date

Chloride <10.0 250 253 101 253 90-110 0 20 11.20.2020 20:19 101 mg/kg

Analytical Method: Chloride by EPA 300

Prep Method: E300P Seq Number: 3142939 Matrix: Soil Date Prep: 11.20.2020 678519-001 678519-001 S MS Sample Id: MSD Sample Id: 678519-001 SD Parent Sample Id:

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

Analytical Method: Chloride by EPA 300

E300P Prep Method: 3142939 Seq Number: Matrix: Soil Date Prep: 11.20.2020 MS Sample Id: 678523-001 S MSD Sample Id: 678523-001 SD Parent Sample Id: 678523-001

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

Analytical Method: TPH by SW8015 Mod

SW8015P Prep Method: 3142933 Matrix: Solid Seq Number: Date Prep: 11.20.2020

MB Sample Id: 7715676-1-BLK LCS Sample Id: 7715676-1-BKS LCSD Sample Id: 7715676-1-BSD

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

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

Analytical Method: TPH by SW8015 Mod

Prep Method: Seq Number: 3142933 Matrix: Solid Date Prep: 11.20.2020

MB Sample Id: 7715676-1-BLK

MBUnits Analysis Flag **Parameter** Result Date

Motor Oil Range Hydrocarbons (MRO) 11.20.2020 11:46 < 50.0 mg/kg

LCS = Laboratory Control Sample = Parent Result = MS/LCS Result = MSD/LCSD Result

MS = Matrix Spike B = Spike AddedD = MSD/LCSD % Rec

SW8015P

Flag

Flag

SW8015P

11.20.2020



#### LT Environmental, Inc.

PLU 442-443

Analytical Method:TPH by SW8015 ModPrep Method:Seq Number:3142933Matrix: SoilDate Prep:

Parent Sample Id: 678519-001 MS Sample Id: 678519-001 S MSD Sample Id: 678519-001 SD

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

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

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
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

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

Analytical Method:BTEX by EPA 8021BPrep Method:SW5035ASeq Number:3142935Matrix: SoilDate 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



1		•	Chain of Custody	Work Order No: LETESZ/
0	XMZCO	Houston, TX (281) 240-4200	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334	
6		Midland,TX (432-704-5440) 575-392-7550) Phoenix,AZ (4	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)	3-620-2000) www.xenco.com Page of
Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell	Work Order Co
y Name:	LT Environmental, Inc., Permian office	Company Name: XTO Energy	XTO Energy	Program: UST/PST ├PRP ├Brownfields RRC ├Juperfund ├─
	3300 North A Street	Address:	3104 East Green Street	State of Project:
te ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220	Reporting:Level III ST/UST RRP Pevel IV
	(432) 236-3849	Email: Spencer.Lo@wsp.	Email: Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan,Moir@wsp.com	Deliverables: EDD ADaPT Other:

E S	ABORATORIES	Hobbs.	Midland,	TX (432-704-544	0) EL Paso,T	X (915)585-3	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 EL (813-520-2000)	1.620-2000)	www.xanco.com Page	of —
Project Manager:	Dan Moir			Bill to: (if different)	) Kyle Littrell	ttrell	- 1		š l	
	LT Environmental, Inc.,	., Permian office		Company Name:		nergy		Program: UST/PST		uperfund
	3300 North A Street			Address:		3104 East Green Street	treet	State of Project:		ſ
City, State ZIP:	Midland, TX 79705			City, State ZIP:	Carlsb	Carlsbad, NM 88220	Ö	Reporting:Level II Level III	ST/UST RRP	level IV
Phone:	(432) 236-3849		Email:	Spencer.Lo@ws	p.com,Kalei.	Jennings@w	Email: Spencer.Lo@wsp.com,Kalei.Jennings@wsp.com,Dan.Moir@wsp.com	Deliverables: EDD	Other:	]
Project Name:	PLU 442-443	2-443	Tur	Turn Around			ANALYSIS REQUEST	EST	Work Order Notes	r Notes
Project Number:	TE012920153	20153	Routine	4						
P.O. Number:			Rush:							
Sampler's Name:	Spencer Lo	ir Lo	Due Date	ate:						
SAMPLE RECEIPT	Te	Yes No	Wet Ice	N N						
Temperature (°C):	2)				ners	)				
Received Intact:	(Yes) No	11	100	14	ntai					
Cooler Custody Seals:	S: Yes No N/A		Correction Factor:	0.2					TAT state the days	and buth
Sample Custody Seals:	_	Total	Total Containers:	7					lab, if received by 4:30pm	by 4:30pm
Sample Identification	tification Matrix	Date Sampled	Time Sampled	Depth	Numb	BTEX (			Sample Comments	nments
FS01	1 S		1030	ယ္						
FS02		11/19/2020	1040	4'	1 ×					
SW01	S	11/19/2020	1100	0-4'	1 ×	×				
SW02	2 S	11/19/2020	1120	0-3'	1 ×	×				
							2			
					1					
							0			
Total 200.7 / 6010	otal 200.7 / 6010 200.8 / 6020:	88	RA 13PPM	Texas 11	Al Sb As	Ba Be I	Cd Ca Cr Co Cu Fe Pt	Pb Mg Mn Mo Ni K Se Ag	SiC	V Zn
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otice: Signature of this do service. Xenco will be li Xenco. A minimum chan	ocument and relinquishment o iable only for the cost of samp	of samples constitutes and shall not a each project and	utes a valid purc ssume any resp a charge of \$5 fo	hase order from c onsibility for any l or each sample su	lient company losses or expe bmitted to Xen	to Xenco, its a nses incurred l co, but not an	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 condition 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 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 cost of samples 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.	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)	(Signature)	Received by	Received by: (Signature)	9)	Date/Time	ime	Relinquished by: (Signature)	ure) Received by: (Signature)		Date/Time
X		Loe ()	MA	1	1-12-20	1514				
0			-			4				

# **Eurofins Xenco, LLC**

# Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 11.19.2020 03.17.00 PM

Work Order #: 678521

Analyst:

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 conta	iner/ 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 relinquis	hed/ received?	Yes	
#10 Chain of Custody agrees with sample I	abels/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 headsp	pace?	N/A	

* Must be	completed for	after-hours	delivery of	samples	prior to	placing in	the r	efrigerato	16

Checklist completed by:	Cloe Clifton	Date: <u>11.19.2020</u>
Checklist reviewed by:	Jessica Wamer  Jessica Kramer	Date: <u>11.20.2020</u>

PH Device/Lot#:

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 12987

#### **CONDITIONS OF APPROVAL**

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

OCD Reviewer	Condition
chensley	None