

LT Environmental, Inc.

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

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

RE: Closure Request Resubmittal WPX Energy Permian, LLC. EP USA #005 (2RP-4984) Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of WPX Energy Permian, LLC. (WPX), presents the following revised Closure Request referencing soil sampling and excavation activities the EP USA #005 (Site), which was assigned Remediation Permit (RP) Number 2RP-4984.

#### Revisions

On November 19, 2018, WPX was notified of the denial associated with the attached Closure Request. The New Mexico Oil Conservation Division found that the request did not meet the applicable remediation guidelines. WPX and LTE have included additional data to support depth to water determination and further clarification of the application of the Closure Criteria assigned to the Site.

## The revision addresses:

- Depth to water was determined to be 51-100 feet below ground surface on December 6, 2018, based on a nearby well, approximately 1,685 feet northeast of the site. A Groundwater Sample Collection Form is provided in the report;
- A potential medium karst designation was reviewed and accepted at the submission of the report (October 19, 2018) and no other nearby receptors were identified that would alter the Closure Criteria standards. The aforementioned ephemeral stream was > 300 feet based on the edge of the known release. Additionally, sidewalls in the direction toward the stream (SW01 & SW02) indicated TPH and chloride concentrations below the reclamation standard. The remaining confirmation soil samples on pad and top four feet (or above) of pasture are compliant with the Closure Criteria based on the most recent interpretation of remediation guidelines;
- The site does not meet the criteria for vertical delineation to 600 mg/kg chloride based on Subparagraph (c) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC. The unrecovered volume does not exceed 200 barrels of produced water and per Subparagraph (d) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC, WPX contends that the release did not contain produced water that exceeds 10,000 mg/l of chloride based on analytical data from delineation soil samples as shown on Figure 2.

A proud member of WSP

LT Environmental, Inc.

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

May 26, 2020

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

**RE:** Closure Request

WPX Energy Permian, LLC. EP USA #005 (2RP-4984) Eddy County, New Mexico

## Dear Mr. Bratcher:

On behalf of WPX Energy Permian, LLC. (WPX), LT Environmental, Inc. (LTE) is pleased to present the following Closure detailing remediation and soil sampling activities at the EP USA #005 (Site) in Unit N, Section 26, Township 26 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the excavation and soil sampling activities was to address impacts to soil after crude oil and produced water were released from a wellhead. The release was discovered on September 17, 2018. WPX estimated the release volume was approximately 5 barrels (bbls) of produced water and 3 bbls of crude oil. The release affected approximately 3,000 square feet of the well pad surface and approximately 1,100 square feet off of the pad surface to the east of the pad. WPX reported the release to the Bureau of Land Management (BLM) and the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 and was assigned Remediation Permit Number 2RP-4984 (Attachment 1). Based on the initial response efforts and the results of the confirmation soil sampling, WPX is requesting no further action for this release event.

## **BACKGROUND**

LTE characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between 51 feet and 100 feet below ground surface (bgs) based on the nearest water well data from an onsite well known as JC Williams, located approximately 1,685 feet northeast from the Site. Groundwater measurement activities for the JC Williams Well occurred on December 6, 2018. Depth to water was observed to be 81.7 feet bgs with a total depth of 153.50 feet bgs. The Groundwater Sample Collection Form summarizing findings is provided as Attachment 2. The closest surface water to the Site is an unnamed arroyo located approximately 541 feet east northeast of the Site. The Site is greater



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than 300 feet from any occupied residence, school, hospital, institution, church, or wetland and greater than 1,000 feet to a freshwater well or spring. The Site is not within a 100-year floodplain, overlying a subsurface mine or overlying an unstable area. The Site is located in a medium-potential karst area.

#### **CLOSURE CRITERIA**

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

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

## **EXCAVATION ACTIVITIES**

On September 24, 2018, LTE was on site to inspect the release area. To delineate hydrocarbon and chloride impacts to soil and direct excavation activities, LTE screened soil samples using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Based on field screening, it was determined that remediation via excavation of the off-pad release area was necessary.

On September 25 and 26, 2018, LTE was on site with Kelley Oilfield Services, Inc. to excavate impacted soil as identified via field screening observations. The final excavation extent was approximately 1,100 square feet in area and extended to 4 feet bgs. The lateral extent of the remediation footprint was approximately 50 feet by 22 feet and is illustrated on Figure 2. Approximately 132 cubic yards of impacted soil were removed using a backhoe. Impacted soil was transported and properly disposed of at the R360 Red Bluff Landfill Facility located in Orla, Texas. Photographs of the release before and during the excavation are included as Attachment 3.

## **SOIL SAMPLING**

Following the removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation to document removal of impacted soil. Seven composite soil samples (FS01, FS02, FS03, FS04, SW01, SW02, and SW03) were collected at depths ranging from 2 feet to 4 feet bgs. Additionally, six discrete soil samples were collected



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from the release footprint on the well pad surface. Well pad surface soil samples were collected from three locations (SS01, SS02, and SS03) at depths of 0.5 feet and 1 foot bgs at each location. Soil sample locations are depicted on Figure 2.

Soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were shipped at 4 degrees Celsius (°C) to Xenco Laboratories in Midland, Texas, under strict chain-of-custody procedures for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-motor oil range organics (MRO) by EPA Method 8015M, and chloride by EPA Method 300.0.

## **ANALYTICAL RESULTS**

Laboratory analytical results indicated BTEX and TPH concentrations were either below the laboratory detection limit or compliant with NMOCD Table 1 closure criteria in all soil samples. Chloride concentrations ranged from 366 mg/kg in soil sample SW01 to 4,950 mg/kg in soil sample SS02 at 0.5 feet bgs. TPH concentrations ranged from 75.5 mg/kg in soil sample SS02 at 0.5 feet bgs to 729 mg/kg in soil sample SS02 at 1 foot bgs. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. Complete laboratory analytical reports are included as Attachment 4.

## **CONCLUSIONS**

Approximately 132 cubic yards of impacted soil were excavated from the release footprint, and laboratory analytical results of seven confirmation soil samples indicated compliance with NMOCD Table 1 closure criteria. Following the receipt of soil sample laboratory analytical results, the excavation area was backfilled with clean imported fill material to match the pre-existing grade. Based on the data collected, WPX is requesting closure of NMOCD Remediation Permit Number 2RP-4984.



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If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096 or <a href="mailto:aager@ltenv.com">aager@ltenv.com</a>.

Sincerely,

LT ENVIRONMENTAL, INC.

Joseph S. Hernandez

**Project Geologist** 

Ashley L. Ager, M.S., P.G.

ashley L. ager

Senior Geologist

cc: Jim Raley, WPX

Robert Hamlet, NMOCD Victoria Venegas, NMOCD Bureau of Land Management

## Attachments:

Figure 1 Site Location Map

Figure 2 Soil Sample Locations

Table 1 Soil Analytical Results

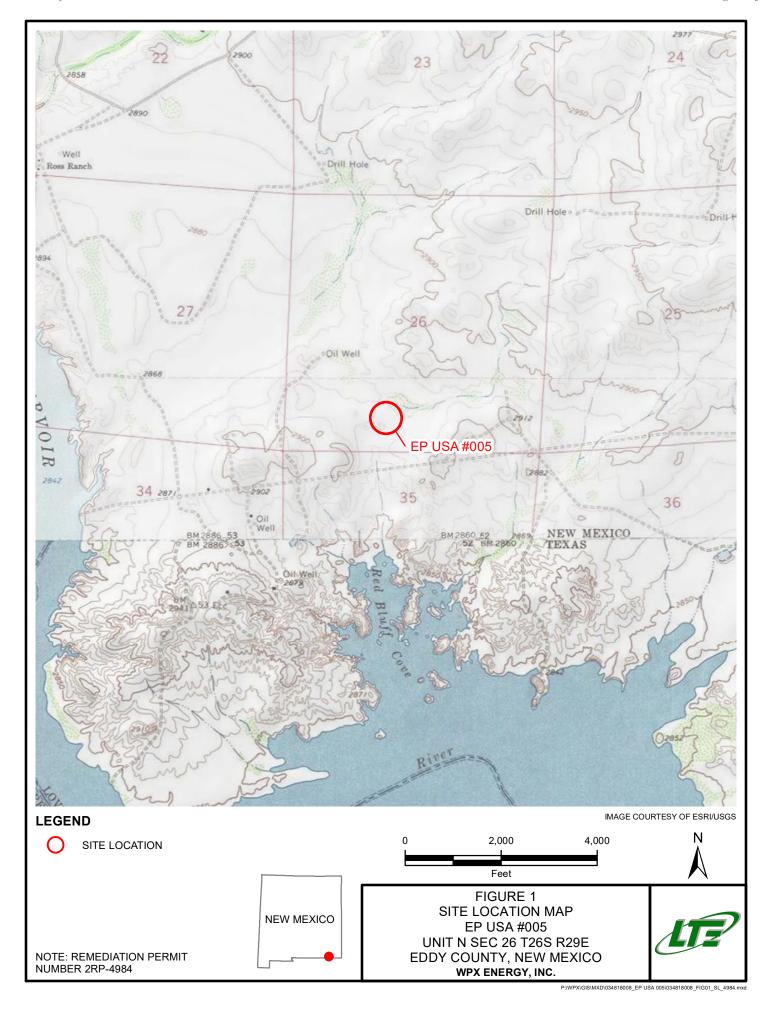
Attachment 1 Initial/Final NMOCD Form C-141

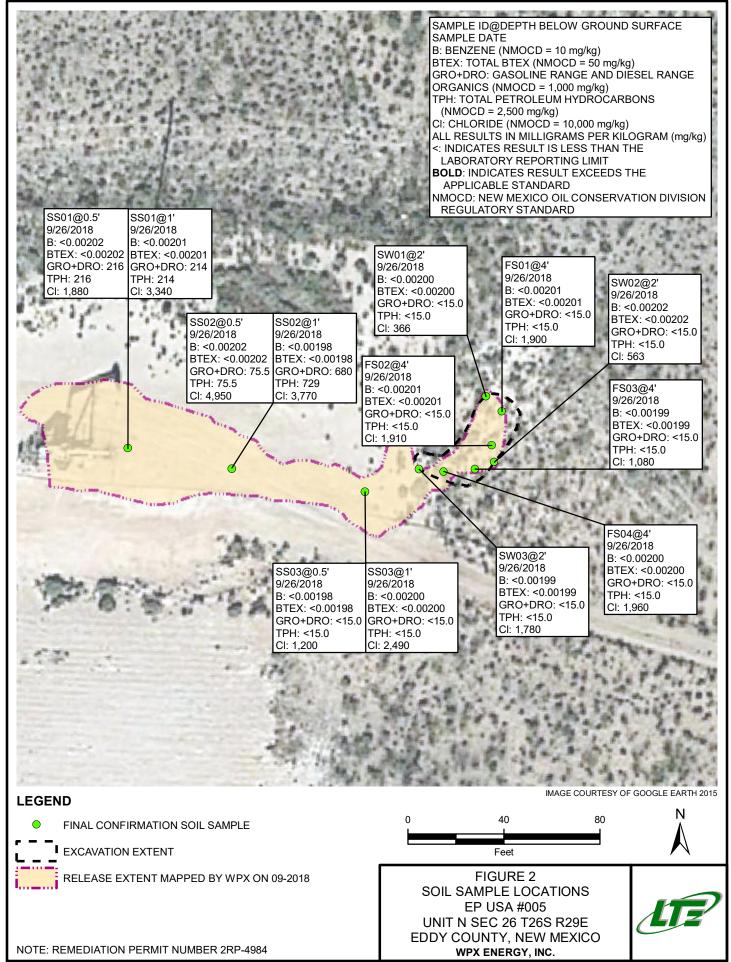
Attachment 2 Groundwater Sample Collection Form

Attachment 3 Photographic Log

Attachment 4 Laboratory Analytical Reports









# TABLE 1 SOIL ANALYTICAL RESULTS

# EP USA #005 REMEDIATION PERMIT NUMBER 2RP-4984 EDDY COUNTY, NEW MEXICO WPX ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Sum of GRO + DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
					Off-pad Exc	avation Confi	rmation Closu	ure Samples					
SW01	2	9/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	366
SW02	2	9/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	563
SW03	2	9/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,780
FS01	4	9/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,900
FS02	4	9/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,910
FS03	4	9/26/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,080
FS04	4	9/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	1,960
					On-pad Site	Characterizat	ion Confirmat	tion Samples					
SS01	0.5	9/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	216	<15.0	216	216	1,880
SS01	1	9/26/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	214	<14.9	214	214	3,340
SS02	0.5	9/26/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	75.5	<15.0	75.5	75.5	4,950
SS02	1	9/26/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	680	49.3	680	729	3,770
SS03	0.5	9/26/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	1,200
SS03	1	9/26/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	2,490
NMOCD Table 1 Limit		imit	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	10,000

#### Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NE - not established

Table 1 - Closure Criteria for Soils Impacted by a Release per 19.15.29 August 2018

TPH - total petroleum hydrocarbons

< - indicates result is below laboratory detection limit

 $\textbf{Bold} \ \ \text{indicates result exceeds the applicable regulatory standard}.$ 

LIZ

EP USA #005 Page 1 of 1



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	NMAP1826970471
District RP	2RP-4984
Facility ID	N/A
Application ID	pMAP1826970173

# **Release Notification**

# **Responsible Party**

Responsible Party: WPX Energy/ RKI	OGRID: <b>246289</b>			
Contact Name: Jim Raley	Contact Telephone: 575-689-7597			
Contact email: james.raley@wpxenergy.com	Incident # (assigned by OCD) NMAP1826970471			
Contact mailing address: 5315 Buena Vista Dr., Carlsbad, NM 88220				
Location of Release Source				
Latitude: <b>32.0069847</b> Longitude: <b>-103.9574661</b>				

Site Name: EP USA #005	Site Type: Oil
Date Release Discovered: 9/17/2018	API#: <b>30-015-25020</b>

(NAD 83 in decimal degrees to 5 decimal places)

Unit Letter	Section	Township	Range	County		
N	26	26S	29E	Eddy		
Surface Owner: State Federal Tribal Private (Name:)						

## **Nature and Volume of Release**

Material	(s) Released (Select all that apply and attach calculations or specific	justification for the volumes provided below)			
Crude Oil	Volume Released (bbls) 3	Volume Recovered (bbls) 0			
Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 0			
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	⊠ Yes □ No			
Condensate	Volume Released (bbls)	Volume Recovered (bbls)			
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)			
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)			
Cause of Release					
Interior corrosion on 1" nipple located on wellhead allowed small hole to develop. This allowed fluids to escape to pad surface. Small area off pad was also impacted approx 50' on east side of well pad. BLM permission granted to excavate impacted area off-site.					

Incident ID NMAP1826970471

District RP 2RP-4984

Facility ID N/A

Application ID pMAP1826970173

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
☐ Yes ⊠ No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	Initial Response
The responsible	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
The source of the rele	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 dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed and managed appropriately.
If all the actions describe	d above have <u>not</u> been undertaken, explain why:
has begun, please attach	IAC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred nt area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are public health or the environ- failed to adequately investig	ormation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger ment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have gate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In if a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Jim Raley	y Title: Environmental Specialist
Jan Fin	
Signature:	Date: 9/25/2018
email: james.raley@wpxo	relephone: 575-689-7597
OCD Only	
Received by:	Date:

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Incident ID	NMAP1826970471
District RP	2RP-4984
Facility ID	N/A
Application ID	pMAP1826970173

# **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?				
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.				
Characterization Report Checklist: Each of the following items must be included in the report.				
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data  Depth to water determination  Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release  Boring or excavation logs  Photographs including date and GIS information  Topographic/Aerial maps  Laboratory data including chain of custody				

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

# State of New Mexico Oil Conservation Division

Incident ID	NMAP1826970471
District RP	2RP-4984
Facility ID	N/A
Application ID	pMAP1826970173

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: Jim Raley Title: **Environmental Specialist** 10/18/18 Signature: Date: Telephone: 575-689-7597 email: James.Raley@wpxenergy.com **OCD Only** Received by: Date:

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

# State of New Mexico Oil Conservation Division

Incident ID	NMAP1826970471
District RP	2RP-4984
Facility ID	N/A
Application ID	pMAP1826970173

# 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 follo	wing items must be include	ded 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: appropriat	te ODC District office mu	st be notified 2 days prior to final sampling)				
☐ Description of remediation activities						
I hereby certify that the information given above is true and conditions all operators are required to report and/or file may endanger public health or the environment. The accepta should their operations have failed to adequately investigate a human health or the environment. In addition, OCD acceptar compliance with any other federal, state, or local laws and/or restore, reclaim, and re-vegetate the impacted surface area to accordance with 19.15.29.13 NMAC including notification to	e certain release notification ance of a C-141 report by the and remediate contamination and remediate contamination of a C-141 report does regulations. The responsion the conditions that existed	ns and perform corrective actions for releases which he OCD does not relieve the operator of liability on that pose a threat to groundwater, surface water, not relieve the operator of responsibility for tible party acknowledges they must substantially I prior to the release or their final land use in				
Printed Name: Jim Raley	Title:	Environmental Specialist				
Signature:	Date:	10/18/18				
email: James.Raley@wpxenergy.com	Telephone:	575-689-7597				
OCD Only						
Received by:	Date:					
Closure approval by the OCD does not relieve the responsible remediate contamination that poses a threat to groundwater, su party of compliance with any other federal, state, or local law	urface water, human health					
Closure Approved by:	Date:					
Printed Name:	Title:					



# **Groundwater Sample Collection Form**

	LT Environmental, Inc
	2243 Main Avenue, Suite 3
	Durango, Colorado 81301
T 07/	205 1006 / 5 070 205 1073

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Dissolved Oxygen (% or mg/L)	ORP (mV)	Comments
Method of	Sampling:	(	<u> Brundfos Pur</u>	np				
	of Purging:		Grundfos Pur	np				
Vol. of Wate	er to Purge:	-	-			(height of wa	ter column * 0.1631 fo	or 2" well or 0.6524 for 4" well) * 3 well vols
	Time:	10	)10			Dep	th to Product: _	No product observed
Depth	h to Water:	8	1.7				epth of Well:	153.50
	Matrix:	W	ater					
	Analyses:	TF	PH, BTEX, c	hloride, R	CRA 8 Metal	s, TDS		
S	Sample ID:		ell 1					
	nple Time:		50					
Sa	mple Date:	12	/6/2018					
Sample	e Location:	Or	n-site well		_		Sampler:	
Projec	ct Number:	03-	4818016					
Pro	ject Name: _	JC	Williams					
			•					Durango, Colorado 81301 T 970.385.1096 / F 970.385.1873

Time	Vol. Removed	Total Vol. Removed (gallons)	pH (std. units)	Temp. (F)	Conductivit y (us or ms)	Dissolved Oxygen (% or mg/L)	ORP (mV)	Comments
1022	3	3	5.9	20.88	115.90	112.1	-32	
1029	2	5	7.01	21.86	116.08	50.7	-10.7	Black flakes
1037	3	8	7.12	21.31	147.10	55.1	-19.5	flow=0.7 gpm
1041	2	10	7.20	21.60	143.98	75.5	-22.5	
1043	4	14	7.21	21.63	149.42	80.4	-23.5	
_						-		

Comments:	
Describe Deviations from SOP:	
Signature: Martin Wills	<b>Date:</b> 12/6/2018





Release footprint on pad surface before excavation—view east toward pasture excavation.

Project: 034818008	WPX Energy, Inc. EP USA #005	A proud member
September 24, 2018	Photographic Log	of WSP



Release footprint on pad surface before excavation – view northwest

Project: 034818008	WPX Energy, Inc. EP USA #005	1TF
September 24, 2018	Photographic Log	A proud member of WSP



Release footprint on pad surface after excavation – view west

Project: 034818008	WPX Energy, Inc. EP USA #005	A proud memb
September 26, 2018	Photographic Log	ofWSP



Excavation area in pasture - view north

Project: 034818008	WPX Energy, Inc. EP USA #005
September 26, 2018	Photographic Log





# **Analytical Report 600488**

for

LT Environmental, Inc.

Project Manager: Adrian Baker EP USA 005

04-OCT-18

Collected By: Client





## 1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)





04-OCT-18

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

Reference: XENCO Report No(s): 600488

**EP USA 005** 

Project Address: Eddy,NM

## **Adrian Baker**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 600488. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 600488 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer

**Project Assistant** 

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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# **Sample Cross Reference 600488**



# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
SS01	S	09-26-18 12:30	6 In	600488-001
SS01	S	09-26-18 12:35	1 ft	600488-002
SS02	S	09-26-18 12:40	6 In	600488-003
SS02	S	09-26-18 12:45	1 ft	600488-004
SS03	S	09-26-18 12:50	6 In	600488-005
SS03	S	09-26-18 12:55	1 ft	600488-006

## **CASE NARRATIVE**

Client Name: LT Environmental, Inc.

Project Name: EP USA 005

Project ID:

Work Order Number(s): 600488

Report Date: 04-OCT-18 Date Received: 09/27/2018

## Sample receipt non conformances and comments:

None

## Sample receipt non conformances and comments per sample:

None

## Analytical non conformances and comments:

Batch: LBA-3064901 Inorganic Anions by EPA 300

Lab Sample ID 600661-012 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 600488-003, -004, -005, -006.

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

Batch: LBA-3065219 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 600488

LT Environmental, Inc., Arvada, CO

**Project Name: EP USA 005** 

**Project Id: Contact:** 

Adrian Baker

**Project Location:** 

Eddy,NM

**Date Received in Lab:** Thu Sep-27-18 10:34 am

**Report Date:** 04-OCT-18 Project Manager: Jessica Kramer

	Lab Id:	600488-0	001	600488-0	002	600488-0	003	600488-	004	600488-	005	600488-0	006	
Analysis Requested	Field Id:	SS01	SS01		SS01		SS02			SS03		SS03		
Anaiysis Kequesieu	Depth:	6- In		1- ft		6- In		1- ft		6- In		1- ft		
Matrix:		SOIL		SOIL	,	SOIL		SOIL	,	SOIL		SOIL	,	
	Sampled:	Sep-26-18	12:30	Sep-26-18	12:35	Sep-26-18	12:40	Sep-26-18	12:45	Sep-26-18	12:50	Sep-26-18	12:55	
BTEX by EPA 8021B	Extracted:	Oct-03-18	08:00	Oct-03-18	08:00	Oct-03-18	08:00	Oct-03-18	08:00	Oct-03-18	08:00	Oct-03-18	08:00	
	Analyzed:	Oct-03-18	15:38	Oct-03-18	16:13	Oct-03-18	16:34	Oct-03-18	16:55	Oct-03-18	17:16	Oct-03-18	17:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene	·	< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
Toluene		< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
Ethylbenzene		< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
m,p-Xylenes		< 0.00404	0.00404	< 0.00402	0.00402	< 0.00403	0.00403	< 0.00397	0.00397	< 0.00396	0.00396	< 0.00401	0.00401	
o-Xylene		< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
Total Xylenes		< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
Total BTEX		< 0.00202	0.00202	< 0.00201	0.00201	< 0.00202	0.00202	< 0.00198	0.00198	< 0.00198	0.00198	< 0.00200	0.00200	
Inorganic Anions by EPA 300	Extracted:	Sep-27-18	16:30	Sep-27-18 16:30		Oct-01-18 09:15 O		Oct-01-18	Oct-01-18 09:15		Oct-01-18 09:15		Oct-01-18 09:15	
	Analyzed:	Sep-28-18	11:57	Sep-28-18	12:03	Oct-01-18	10:47	Oct-01-18 10:52		Oct-01-18 11:44		Oct-01-18 10:58		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		1880	25.0	3340	25.0	4950	49.6	3770	24.8	1200	5.05	2490	25.2	
TPH by SW8015 Mod	Extracted:	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18 16:00		Sep-28-18 16:00		Sep-28-18	16:00	
	Analyzed:	Sep-28-18	23:36	Sep-29-18	00:34	Sep-29-18	00:53	Sep-29-18	01:12	Sep-29-18	01:31	Sep-29-18	01:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	
Diesel Range Organics (DRO)		216	15.0	214	14.9	75.5	15.0	680	15.0	<15.0	15.0	<15.0	15.0	
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0	49.3	15.0	<15.0	15.0	<15.0	15.0	
Total TPH		216	15.0	214	14.9	75.5	15.0	729	15.0	<15.0	15.0	<15.0	15.0	

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

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Version: 1.%

Jessica Kramer Project Assistant

Jessica Weamer





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Sample Id: **SS01** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600488-001

Date Collected: 09.26.18 12.30

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech:

SCM

Analyst:

CHE

Date Prep:

09.27.18 16.30

Basis:

Wet Weight

Seq Number: 3064713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1880	25.0	mg/kg	09.28.18 11.57		5

Analytical Method: TPH by SW8015 Mod

Tech:

Seq Number: 3064912

ARM

ARM Analyst:

o-Terphenyl

Date Prep:

84-15-1

09.28.18 16.00

Prep Method: TX1005P

% Moisture:

70-135

Basis:

09.28.18 23.36

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.28.18 23.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	216	15.0		mg/kg	09.28.18 23.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.28.18 23.36	U	1
Total TPH	PHC635	216	15.0		mg/kg	09.28.18 23.36		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	09.28.18 23.36		

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# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id:

**SS01** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-001

Date Collected: 09.26.18 12.30

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: Analyst: ALJ

ALJ

Date Prep:

10.03.18 08.00

Basis:

% Moisture:

Wet Weight

Seq Number: 3065219

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	10.03.18 15.38	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	10.03.18 15.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	102	%	70-130	10.03.18 15.38		
1,4-Difluorobenzene		540-36-3	101	%	70-130	10.03.18 15.38		





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id:

**SS01** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-002

Date Collected: 09.26.18 12.35

Sample Depth: 1 ft

Prep Method: E300P

Analytical Method: Inorganic Anions by EPA 300

SCM

% Moisture:

Analyst: Seq Number: 3064713

Tech:

CHE

Date Prep:

09.27.18 16.30

Basis:

Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3340	25.0	mg/kg	09.28.18 12.03		5

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst:

Date Prep:

09.28.18 16.00

% Moisture:

Basis:

Prep Method: TX1005P

Wet Weight

Seq Number: 3064912

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	09.29.18 00.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	214	14.9		mg/kg	09.29.18 00.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9		mg/kg	09.29.18 00.34	U	1
Total TPH	PHC635	214	14.9		mg/kg	09.29.18 00.34		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	09.29.18 00.34		
o-Terphenyl		84-15-1	108	%	70-135	09.29.18 00.34		





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id: **SS01** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-002

Date Collected: 09.26.18 12.35

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

% Moisture:

Seq Number: 3065219

ALJ

Analyst:

ALJ

Date Prep:

10.03.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	10.03.18 16.13	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	10.03.18 16.13	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	F
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.03.18 16.13	
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.03.18 16.13	





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id:

**SS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-003

Date Collected: 09.26.18 12.40

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech: Analyst: SCMCHE

Date Prep:

10.01.18 09.15

Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4950	49.6	mg/kg	10.01.18 10.47		10

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: Analyst: ARMARM

Date Prep:

09.28.18 16.00

Basis:

% Moisture:

Wet Weight

Seq Number: 3064912

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 00.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	75.5	15.0		mg/kg	09.29.18 00.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 00.53	U	1
Total TPH	PHC635	75.5	15.0		mg/kg	09.29.18 00.53		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	09.29.18 00.53		
o-Terphenyl		84-15-1	95	%	70-135	09.29.18 00.53		





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id:

**SS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-003

Date Collected: 09.26.18 12.40

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep: 10.03.18 08.00

Basis:

Wet Weight

Seq Number: 3065219

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
m,p-Xylenes	179601-23-1	< 0.00403	0.00403		mg/kg	10.03.18 16.34	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	10.03.18 16.34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	98	%	70-130	10.03.18 16.34		
1,4-Difluorobenzene		540-36-3	93	%	70-130	10.03.18 16.34		





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Soil

Sample Id:

**SS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-004

Date Collected: 09.26.18 12.45

Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: Analyst: SCMCHE

Date Prep:

10.01.18 09.15

09.28.18 16.00

% Moisture: Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3770	24.8	mg/kg	10.01.18 10.52		5

Analytical Method: TPH by SW8015 Mod

ARM

Tech:

ARM Analyst:

Seq Number: 3064912

Prep Method: TX1005P

% Moisture:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	680	15.0		mg/kg	09.29.18 01.12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	49.3	15.0		mg/kg	09.29.18 01.12		1
Total TPH	PHC635	729	15.0		mg/kg	09.29.18 01.12		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	95	%	70-135	09.29.18 01.12		
o-Terphenyl		84-15-1	107	%	70-135	09.29.18 01.12		

Date Prep:





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

**EP USA 005** 

Soil

Sample Id: **SS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-004

Date Collected: 09.26.18 12.45

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

ALJ

10.03.18 08.00 Date Prep:

Basis:

% Moisture:

Wet Weight

Analyst: Seq Number: 3065219

Parameter	Cas Number	Result	RL		Units	<b>Analysis Date</b>	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
m,p-Xylenes	179601-23-1	< 0.00397	0.00397		mg/kg	10.03.18 16.55	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.03.18 16.55	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	101	%	70-130	10.03.18 16.55		
4-Bromofluorobenzene		460-00-4	90	%	70-130	10.03.18 16.55		





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

**EP USA 005** 

Sample Id:

**SS03** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600488-005

Date Collected: 09.26.18 12.50

Sample Depth: 6 In

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P % Moisture:

Tech:

SCM CHE

Date Prep:

10.01.18 09.15

Basis:

Wet Weight

Analyst: Seq Number: 3064901

Parameter Cas Number Result RLUnits **Analysis Date** Flag Dil 16887-00-6 Chloride 10.01.18 11.44 1200 5.05 mg/kg 1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

% Moisture:

Tech: Analyst: ARM

ARM

Date Prep:

09.28.18 16.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 01.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 01.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 01.31	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 01.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	09.29.18 01.31		
o-Terphenyl		84-15-1	93	%	70-135	09.29.18 01.31		





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

**EP USA 005** 

Sample Id: **SS03** 

Matrix: Soil Date Received:09.27.18 10.34

Lab Sample Id: 600488-005

Date Collected: 09.26.18 12.50

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

Date Prep:

10.03.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	10.03.18 17.16	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	10.03.18 17.16	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.03.18 17.16		
4-Bromofluorobenzene		460-00-4	97	%	70-130	10.03.18 17.16		





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

**EP USA 005** 

Soil

Sample Id:

**SS03** 

Matrix:

Date Prep:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-006

Date Collected: 09.26.18 12.55

Sample Depth: 1 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech:

SCM

% Moisture:

Analyst:

CHE

10.01.18 09.15

Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	<b>Analysis Date</b>	Flag	Dil
Chloride	16887-00-6	2490	25.2	mg/kg	10.01.18 10.58		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: Analyst: ARM

ARM

Date Prep:

09.28.18 16.00

Basis:

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 01.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 01.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 01.51	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 01.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	09.29.18 01.51		
o-Terphenyl		84-15-1	92	%	70-135	09.29.18 01.51		





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

**EP USA 005** 

Soil

Sample Id:

**SS03** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600488-006

Date Collected: 09.26.18 12.55

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

ALJ

% Moisture:

Tech: Analyst:

ALJ

10.03.18 08.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	10.03.18 17.38	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.03.18 17.38	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	94	%	70-130	10.03.18 17.38		
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.03.18 17.38		



# **Flagging Criteria**



Page 42 of 76

- 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.

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.



### LT Environmental, Inc.

**EP USA 005** 

Analytical Method: Seq Number: MB Sample Id:	Inorganic Anion 3064713 7663129-1-BLK	s by EPA 300		Matrix:	Solid 7663129-	1-BKS			rep Meth Date P D Sampl	rep: 09.2	0P 27.18 3129-1-BSD	
Parameter	M Resu		LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride	<5.		255	102	256	102	90-110	0	20	mg/kg	09.28.18 09:24	
Analytical Method: Seq Number: MB Sample Id:	Inorganic Anion 3064901 7663267-1-BLK	s by EPA 300		Matrix:	Solid 7663267-	1-RKS			rep Meth Date P	rep: 10.0	0P 01.18 3267-1-BSD	
Parameter	M		LCS	LCS	LCSD	LCSD	Limits		_	nit Units	Analysis	Flag
Chloride	<b>Resu</b> <4.		Result 258	<b>%Rec</b> 103	Result 259	<b>%Rec</b> 104	90-110	0	20	mg/kg	<b>Date</b> 10.01.18 10:13	
Analytical Method: Seq Number:	3064713	s by EPA 300		Matrix:		01.5			rep Meth Date P	rep: 09.2	27.18	
Parent Sample Id:	600460-001 Pare	nt Spike	MS Sa	mpie ia:	600460-0 <b>MSD</b>	MSD	Limits		_	e 1a: 000 nit Units	460-001 SD Analysis	El
Parameter	Resu	lt Amount	Result	%Rec	Result	%Rec					Date	Flag
Chloride	<0.8	50 248	262	106	261	105	90-110	0	20	mg/kg	09.28.18 09:41	
Analytical Method: Seq Number: Parent Sample Id:	Inorganic Anion 3064713 600490-001	s by EPA 300		Matrix:	Soil 600490-0	01 S			rep Meth Date P	rep: 09.2	0P 27.18 490-001 SD	
Parameter	Pare Resu	•	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride		55 253	704	98	704	98	90-110	0	20	mg/kg	09.28.18 11:00	
Analytical Method: Seq Number: Parent Sample Id:	Inorganic Anion 3064901 600488-005	s by EPA 300		Matrix: mple Id:	Soil 600488-0	05 S			rep Meth Date Pa D Sampl	rep: 10.0	0P 01.18 488-005 SD	
Parameter	Pares Resu	-	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date	Flag
Chloride	12		1400	79	1400		90-110	0	20	mg/kg	10.01.18 11:49	X

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

LCS = Laboratory Control Sample
A = Parent Result

C = MS/LCS Result
E = MSD/LCSD Result

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



### LT Environmental, Inc.

**EP USA 005** 

248

Analytical Method: Inorganic Anions by EPA 300

Matrix: Soil

MS

Prep Method:

E300P

Seq Number:

3064901

Date Prep:

10.01.18

Parent Sample Id:

600661-012

MS Sample Id: 600661-012 S

MSD Sample Id: 600661-012 SD %RPD RPD Limit Units

Analysis

**Parameter** Chloride

Parent Result Amount < 0.858

Spike

250

Result %Rec 247 99

MS

**MSD MSD** %Rec Result

99

Limits 90-110

0 20 mg/kg

Date 10.01.18 10:30

Flag

Flag

Analytical Method: TPH by SW8015 Mod

Matrix: Solid

Prep Method: Date Prep:

TX1005P

Seq Number: MB Sample Id:

3064912

09.28.18

7663248-1-BLK

LCS Sample Id: 7663248-1-BKS

Limits

LCSD Sample Id: 7663248-1-BSD

MB Spike LCS LCS %RPD RPD Limit Units LCSD LCSD Limits Analysis **Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) < 8.00 1000 987 99 1080 108 70-135 9 20 09.28.18 19:29 mg/kg Diesel Range Organics (DRO) 1000 1000 100 1080 09.28.18 19:29 < 8.13

MB MB Surrogate %Rec Flag LCS

70-135 108

LCSD

LCSD

8 20 mg/kg

Units

Analysis

%Rec Flag %Rec Flag Date 09.28.18 19:29 1-Chlorooctane 96 120 125 70-135 % 100 114 115 70-135 09.28.18 19:29 o-Terphenyl %

Analytical Method: TPH by SW8015 Mod

102

LCS

Prep Method:

TX1005P

Seq Number:

3064912

Matrix: Soil

Date Prep:

09.28.18

1-Chlorooctane

o-Terphenyl

600266-005

Parent Sample Id:

MS Sample Id: 600266-005 S MSD Sample Id: 600266-005 SD

Flag

MS MS %RPD RPD Limit Units Analysis Parent Spike **MSD** MSD Limits **Parameter** Result Result %Rec Date Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 999 09.28.18 20:26 < 7.99 965 97 981 98 70-135 2 20 mg/kg 999 987 99 1010 101 70-135 2 20 09.28.18 20:26 Diesel Range Organics (DRO) < 8.12 mg/kg

**Surrogate** 

MS %Rec 115

MS MSD Flag %Rec 116 104

**MSD** Limits Flag 70-135 70-135 Units Analysis Date 09.28.18 20:26

09.28.18 20:26

%

%

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

[D] = 100\*(C-A) / BRPD = 200\* | (C-E) / (C+E) |[D] = 100 \* (C) / [B]

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

LCS = Laboratory Control Sample A = Parent Result

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



### LT Environmental, Inc.

**EP USA 005** 

Analytical Method: BTEX by EPA 8021B

Seq Number: 3065219

MB Sample Id: 7663470-1-BLK Matrix: Solid

LCS Sample Id: 7663470-1-BKS

Prep Method:

SW5030B

Date Prep: 10.03.18

LCSD Sample Id: 7663470-1-BSD

MD Sample Id.	7005470-1-DLK		LCD Dun	ipic ia.	7005170	DIL	ECOD Sample Id. 7003 170 1 BBB					
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00201	0.100	0.105	105	0.101	100	70-130	4	35	mg/kg	10.03.18 08:13	
Toluene	< 0.00201	0.100	0.0967	97	0.0954	94	70-130	1	35	mg/kg	10.03.18 08:13	
Ethylbenzene	< 0.00201	0.100	0.110	110	0.106	105	70-130	4	35	mg/kg	10.03.18 08:13	
m,p-Xylenes	< 0.00402	0.201	0.219	109	0.211	104	70-130	4	35	mg/kg	10.03.18 08:13	
o-Xylene	< 0.00201	0.100	0.109	109	0.106	105	70-130	3	35	mg/kg	10.03.18 08:13	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Rec		-	Limits	Units	Analysis Date	
1,4-Difluorobenzene	91		1	14		96		7	70-130	%	10.03.18 08:13	
4-Bromofluorobenzene	76		1	00		97		7	70-130	%	10.03.18 08:13	

Analytical Method: BTEX by EPA 8021B

Seq Number:

Parent Sample Id:

3065219

600489-004

Matrix: Soil

MS Sample Id: 600489-004 S

Prep Method:

SW5030B

Date Prep: 10.03.18

MSD Sample Id: 600489-004 SD

Spike MS MSD %RPD RPD Limit Units MS Limits Analysis **Parent MSD Parameter** Flag Result Amount Result %Rec Date Result %Rec 10.03.18 14:13 0.0742 70-130 102 XF Benzene < 0.00201 0.101 73 0.0242 24 35 mg/kg Toluene < 0.00201 0.101 0.0664 66 0.0220 22 70-130 100 35 10.03.18 14:13 XF mg/kg 0.0744 70-130 Ethylbenzene < 0.00201 0.101 74 0.0218 22 109 35 10.03.18 14:13 XF mg/kg 10.03.18 14:13 m,p-Xylenes < 0.00102 0.201 0.148 74 0.0412 70-130 35 XF 21 113 mg/kg 74 70-130 10.03.18 14:13 o-Xylene < 0.00201 0.101 0.0750 0.0211 21 112 35 mg/kg XF

Surrogate	MS MS %Rec Flag	MSD MSD %Rec Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84	94	70-130	%	10.03.18 14:13
4-Bromofluorobenzene	107	82	70-130	%	10.03.18 14:13

Setting the Standard since 1990

# CHAIN OF G STODY

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Date Time: Recaived By: Retinquished By: Date Time: 09/2//2/1 15:00 Date Time: ÷ 2 09/26 Project Information
Project Name/Number: > ^ ^ PO Number: Midland, Texas (432-704-5251) San Antonio, Texas (210-509-3334) U Environmental Inc Received By: 2:50 12.45 15:40 12:35 12:30 Received By: Received By TRRP Checklist Time Level 3 (CLP Forms) Level III Std QC+ Forms Level II Std QC 034818008 Matrix Data Deliverable Information www.xenco.com # of bottles HCI NaOH/Zn Acetate B HNO3 Custody Seal # Level IV (Full Data Pkg /raw data) UST / RG -411 TRRP Level IV Relinquished By: H2SQ4 NaOH NaHSO4 меон BIEX Phoenix, Arizona (480-355-0900) only 8021 Xenco Quote # Preserved where applicable DROGROMRO) 8015 FED-EX / UPS: Tracking # Notes: Xenco Job # Field Comments WI = Wipe SL = Sludge OW =Ocean/Sea Water P = Product SW = Surface water DW = Drinking Water W = Water WW≔ Waste Water GW =Ground Water S = Soll/Sed/Solid Matrix Codes



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



Client: LT Environmental, Inc.

Date/ Time Received: 09/27/2018 10:34:00 AM

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

Work Order #: 600488

Temperature Measuring device used: R8

	Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?		.3	
#2 *Shipping container in good condition?		Yes	
#3 *Samples received on ice?		No	
#4 *Custody Seals intact on shipping conta	ainer/ cooler?	N/A	
#5 Custody Seals intact on sample bottles	?	N/A	
#6*Custody Seals Signed and dated?		N/A	
#7 *Chain of Custody present?		Yes	
#8 Any missing/extra samples?		No	
#9 Chain of Custody signed when relinquis	shed/ 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	TPH received in bulk container
#13 Samples properly preserved?		Yes	
#14 Sample container(s) intact?		Yes	
#15 Sufficient sample amount for indicated	d test(s)?	Yes	
#16 All samples received within hold time?		Yes	
#17 Subcontract of sample(s)?		No	
#18 Water VOC samples have zero heads	space?	N/A	

Must be	completed for after-hours de	livery of samples prior to plac	ing in the refrigerator
Analyst:		PH Device/Lot#:	
	Checklist completed by:	Bridge Tol	Date: <u>09/27/2018</u>
	Checklist reviewed by:	Jessica Vramer  Jessica Kramer	Date: 09/28/2018

# **Analytical Report 600489**

for

LT Environmental, Inc.

Project Manager: Adrian Baker EP USA 005

03-OCT-18

Collected By: Client





### 1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (LELAP Lab ID #04176) Xenco-Tampa: Florida (E87429) Xenco-Lakeland: Florida (E84098)





03-OCT-18

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

Reference: XENCO Report No(s): 600489

**EP USA 005** 

Project Address: Eddy, NM

### **Adrian Baker**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 600489. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 600489 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Vramer

**Project Assistant** 

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# **Sample Cross Reference 600489**



# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
SW01	S	09-26-18 11:05	2 ft	600489-001
SW02	S	09-26-18 11:10	2 ft	600489-002
SW03	S	09-26-18 11:15	2 ft	600489-003
FS01	S	09-26-18 11:45	4 ft	600489-004
FS02	S	09-26-18 11:50	4 ft	600489-005
FS03	S	09-26-18 11:55	4 ft	600489-006
FS04	S	09-26-18 12:00	4 ft	600489-007

### CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: EP USA 005

Project ID:

Work Order Number(s): 600489

Report Date: 03-OCT-18 Date Received: 09/27/2018

### Sample receipt non conformances and comments:

None

### Sample receipt non conformances and comments per sample:

None

### Analytical non conformances and comments:

Batch: LBA-3065147 BTEX by EPA 8021B

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

Batch: LBA-3065219 BTEX by EPA 8021B

Lab Sample ID 600489-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s

are due to possible matrix interference. Samples in the analytical batch are: 600489-003, -004, -005, -006, -007.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

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

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 600489-003, -004, -005, -006, -007



# Certificate of Analysis Summary 600489

LT Environmental, Inc., Arvada, CO

**Project Name: EP USA 005** 

**Project Id: Contact:** 

**Project Location:** 

Adrian Baker

Eddy, NM

**Date Received in Lab:** Thu Sep-27-18 10:34 am

Report Date: 03-OCT-18

Project Manager: Jessica Kramer

	7 7 7 7 7	600400.6	001	600400.6	vo2	600400.6	202	600400	20.4	600400	005	C00400 /	200
	Lab Id:	600489-0	001	600489-0		600489-0		600489-		600489-0		600489-0	
Analysis Requested	Field Id:	SW01		SW02		SW03		FS01		FS02		FS03	
Thatysis Requesica	Depth:	2- ft		2- ft		2- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL	SOIL SOIL			SOIL	,	SOIL	,	SOIL	,
	Sampled:	Sep-26-18	Sep-26-18 11:05		11:10	Sep-26-18	11:15	Sep-26-18	11:45	Sep-26-18	11:50	Sep-26-18	11:55
BTEX by EPA 8021B	Extracted:	Oct-02-18	15:00	Oct-02-18 1	15:00	Oct-03-18 (	08:00	Oct-03-18	08:00	Oct-03-18	08:00	Oct-03-18	08:00
	Analyzed:	Oct-03-18	Oct-03-18 01:08		01:29	Oct-03-18	13:09	Oct-03-18	10:19	Oct-03-18	13:30	Oct-03-18	13:51
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00200			0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
Toluene		< 0.00200	0.00200 0.00200 <0		0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
Ethylbenzene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
m,p-Xylenes		< 0.00399	0.00399	< 0.00404	0.00404	< 0.00398	0.00398	< 0.00402	0.00402	< 0.00402	0.00402	< 0.00398	0.00398
o-Xylene		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
Total Xylenes		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
Total BTEX		< 0.00200	0.00200	< 0.00202	0.00202	< 0.00199	0.00199	< 0.00201	0.00201	< 0.00201	0.00201	< 0.00199	0.00199
Inorganic Anions by EPA 300	Extracted:	Oct-01-18	09:15	Oct-01-18 09:15		Oct-01-18 (	09:15	Oct-01-18	09:15	Oct-01-18 09:15		Oct-01-18 09:15	
	Analyzed:	Oct-01-18	11:15	Oct-01-18	11:21	Oct-01-18	11:26	Oct-01-18	11:32	Oct-01-18	11:38	Oct-01-18	12:01
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		366	50.1	563	4.97	1780	25.0	1900	49.5	1910	50.5	1080	49.5
TPH by SW8015 Mod	Extracted:	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18	16:00	Sep-28-18	17:00
	Analyzed:	Sep-29-18	02:10	Sep-29-18 (	02:29	Sep-29-18 (	02:48	Sep-29-18	03:08	Sep-29-18	03:27	Sep-29-18	09:36
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

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Jessica Veramer



# Certificate of Analysis Summary 600489

LT Environmental, Inc., Arvada, CO

**Project Name: EP USA 005** 



**Project Id: Contact:** 

Adrian Baker

**Project Location:** 

Eddy, NM

**Date Received in Lab:** Thu Sep-27-18 10:34 am

Report Date: 03-OCT-18

Project Manager: Jessica Kramer

	Lab Id:	600489-007			
Analysis Requested	Field Id:	FS04			
Anaiysis Requesieu	Depth:	4- ft			
	Matrix:	SOIL			
	Sampled:	Sep-26-18 12:00			
BTEX by EPA 8021B	Extracted:	Oct-03-18 08:00			
	Analyzed:	Oct-03-18 15:18			
	Units/RL:	mg/kg RL			
Benzene		< 0.00200 0.00200			
Toluene		< 0.00200 0.00200			
Ethylbenzene		< 0.00200 0.00200			
m,p-Xylenes		< 0.00399 0.00399			
o-Xylene		< 0.00200 0.00200			
Total Xylenes		<0.00200 0.00200			
Total BTEX		< 0.00200 0.00200			
<b>Inorganic Anions by EPA 300</b>	Extracted:	Oct-01-18 09:15			
	Analyzed:	Oct-01-18 12:06			
	Units/RL:	mg/kg RL			
Chloride		1960 101			
TPH by SW8015 Mod	Extracted:	Sep-28-18 17:00			
	Analyzed:	Sep-29-18 10:33			
	Units/RL:	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0			
Diesel Range Organics (DRO)					
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0			
Total TPH		<15.0 15.0			

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

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fession Weamer Jessica Kramer





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

**EP USA 005** 

Sample Id:

**SW01** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600489-001

Date Collected: 09.26.18 11.05

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: Analyst:

SCMCHE

Date Prep:

10.01.18 09.15

Basis:

% Moisture:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	366	50.1	mg/kg	10.01.18 11.15		10

Analytical Method: TPH by SW8015 Mod

ARM

ARM Analyst:

Tech:

Date Prep:

09.28.18 16.00

% Moisture:

Prep Method: TX1005P

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	<b>Analysis Date</b>	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 02.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 02.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 02.10	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 02.10	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	91	%	70-135	09.29.18 02.10		
o-Terphenyl		84-15-1	92	%	70-135	09.29.18 02.10		





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

**EP USA 005** 

Soil

Sample Id:

**SW01** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-001

Date Collected: 09.26.18 11.05

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

Analyst:

ALJ

10.02.18 15.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.03.18 01.08	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.03.18 01.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	70-130	10.03.18 01.08		
4-Bromofluorobenzene		460-00-4	99	%	70-130	10.03.18 01.08		





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

**EP USA 005** 

Sample Id:

**SW02** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600489-002

Date Collected: 09.26.18 11.10

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech: Analyst: SCMCHE

Date Prep:

10.01.18 09.15

Basis:

Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	563	4.97	mg/kg	10.01.18 11.21		1

Analytical Method: TPH by SW8015 Mod

ARM

Tech: Analyst:

ARM

Date Prep:

09.28.18 16.00

Prep Method: TX1005P

% Moisture:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 02.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 02.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 02.29	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 02.29	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	90	%	70-135	09.29.18 02.29		
o-Terphenyl		84-15-1	86	%	70-135	09.29.18 02.29		





# LT Environmental, Inc., Arvada, CO

**EP USA 005** 

Sample Id: **SW02** Lab Sample Id: 600489-002

Matrix:

Soil

Date Received:09.27.18 10.34

Date Collected: 09.26.18 11.10

Sample Depth: 2 ft

Prep Method: SW5030B

% Moisture:

Basis:

Wet Weight

Analytical Method: BTEX by EPA 8021B

Tech:

ALJ

ALJ Analyst:

Date Prep:

10.02.18 15.00

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	10.03.18 01.29	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	10.03.18 01.29	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	70-130	10.03.18 01.29		
4-Bromofluorobenzene		460-00-4	97	%	70-130	10.03.18 01.29		





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

**EP USA 005** 

Sample Id:

**SW03** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600489-003

Date Collected: 09.26.18 11.15

Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: Analyst:

SCM CHE

Date Prep:

10.01.18 09.15

Basis:

% Moisture:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1780	25.0	mg/kg	10.01.18 11.26		5

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst:

o-Terphenyl

Seq Number: 3064912

Date Prep:

84-15-1

09.28.18 16.00

92

Prep Method: TX1005P

09.29.18 02.48

% Moisture:

70-135

Basis: Wet Weight

Cas Number Result RL**Parameter** Units **Analysis Date** Flag Dil Gasoline Range Hydrocarbons (GRO) PHC610 09.29.18 02.48 <15.0 15.0 mg/kg U 1 Diesel Range Organics (DRO) C10C28DRO <15.0 15.0 mg/kg 09.29.18 02.48 U 1 Motor Oil Range Hydrocarbons (MRO) PHCG2835 <15.0 15.0 09.29.18 02.48 U mg/kg Total TPH PHC635 <15.0 15.0 mg/kg 09.29.18 02.48 U 1 % Surrogate Cas Number Units Limits **Analysis Date** Flag Recovery 1-Chlorooctane 111-85-3 70-135 09.29.18 02.48 92 %

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Final 1.000





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

**EP USA 005** 

Soil

Sample Id:

**SW03** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-003

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Date Collected: 09.26.18 11.15

Prep Method: SW5030B

% Moisture:

Tech: Analyst: ALJ

ALJ

10.03.18 08.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	10.03.18 13.09	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	10.03.18 13.09	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	79	%	70-130	10.03.18 13.09		
1,4-Difluorobenzene		540-36-3	95	%	70-130	10.03.18 13.09		





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

**EP USA 005** 

Sample Id:

**FS01** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600489-004

Date Collected: 09.26.18 11.45

Sample Depth: 4 ft

Prep Method: E300P

Analytical Method: Inorganic Anions by EPA 300

SCM

CHE

Date Prep:

10.01.18 09.15

% Moisture: Basis:

Wet Weight

Analyst:

Tech:

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	<b>Analysis Date</b>	Flag	Dil
Chloride	16887-00-6	1900	49.5	mg/kg	10.01.18 11.32		10

Analytical Method: TPH by SW8015 Mod

Tech:

ARM

ARM Analyst:

Date Prep:

09.28.18 16.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 03.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 03.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 03.08	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 03.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	09.29.18 03.08		
o-Terphenyl		84-15-1	91	%	70-135	09.29.18 03.08		





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

**EP USA 005** 

Sample Id:

**FS01** 

Matrix:

Soil

Date Received:09.27.18 10.34

Lab Sample Id: 600489-004

Date Collected: 09.26.18 11.45

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech:

ALJ ALJ

Date Prep:

10.03.18 08.00

Basis:

Wet Weight

Analyst: Seq Number: 3065219

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	10.03.18 10.19	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	10.03.18 10.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	80	%	70-130	10.03.18 10.19		
4-Bromofluorobenzene		460-00-4	97	%	70-130	10.03.18 10.19		





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

**EP USA 005** 

Soil

Sample Id: **FS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-005

Date Collected: 09.26.18 11.50

Sample Depth: 4 ft

Analytical Method: Inorganic Anions by EPA 300

Tech:

Prep Method: E300P

% Moisture:

Wet Weight

Analyst: Seq Number: 3064901

SCM

CHE

Date Prep:

10.01.18 09.15

Basis:

Parameter

Cas Number Chloride 16887-00-6

Result RL1910 50.5

Units mg/kg

**Analysis Date** 10.01.18 11.38 Flag Dil 10

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P % Moisture:

Tech: Analyst: ARM ARM

Date Prep:

09.28.18 16.00

Basis:

Wet Weight

Seq Number: 3064912

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 03.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 03.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 03.27	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 03.27	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	

1-Chlorooctane 111-85-3 70-135 09.29.18 03.27 88 o-Terphenyl 84-15-1 88 70-135 09.29.18 03.27





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

**EP USA 005** 

Soil

Sample Id:

**FS02** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-005

Date Collected: 09.26.18 11.50

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ

ALJ

10.03.18 08.00 Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	10.03.18 13.30	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	10.03.18 13.30	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	85	%	70-130	10.03.18 13.30		
4-Bromofluorobenzene		460-00-4	91	%	70-130	10.03.18 13.30		





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

**EP USA 005** 

Sample Id: **FS03** 

Matrix: Soil Date Received:09.27.18 10.34

Lab Sample Id: 600489-006

Date Collected: 09.26.18 11.55

Sample Depth: 4 ft

Prep Method: E300P

Analytical Method: Inorganic Anions by EPA 300

% Moisture:

Tech: Analyst: SCM

CHE

Date Prep:

10.01.18 09.15

Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	<b>Analysis Date</b>	Flag	Dil
Chloride	16887-00-6	1080	49.5	mg/kg	10.01.18 12.01		10

Analytical Method: TPH by SW8015 Mod

ARMTech:

ARM Analyst:

Date Prep:

09.28.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 09.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 09.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 09.36	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 09.36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	93	%	70-135	09.29.18 09.36		
o-Terphenyl		84-15-1	91	%	70-135	09.29.18 09.36		





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

**EP USA 005** 

Soil

10.03.18 08.00

Sample Id:

**FS03** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-006

Date Collected: 09.26.18 11.55

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech:

ALJ

% Moisture:

ALJ Analyst:

Date Prep:

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	10.03.18 13.51	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	10.03.18 13.51	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	10.03.18 13.51		
1,4-Difluorobenzene		540-36-3	106	%	70-130	10.03.18 13.51		





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

**EP USA 005** 

Soil

Sample Id:

FS04

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-007

Date Collected: 09.26.18 12.00

Sample Depth: 4 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

% Moisture:

Tech: Analyst: SCMCHE

Date Prep:

10.01.18 09.15

Basis:

Wet Weight

Seq Number: 3064901

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1960	101	mg/kg	10.01.18 12.06		20

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech:

ARM

% Moisture:

ARM Analyst:

Date Prep:

09.28.18 17.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	09.29.18 10.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	09.29.18 10.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0		mg/kg	09.29.18 10.33	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	09.29.18 10.33	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	92	%	70-135	09.29.18 10.33		
o-Terphenyl		84-15-1	92	%	70-135	09.29.18 10.33		





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

**EP USA 005** 

Soil

Sample Id:

**FS04** 

Matrix:

Date Received:09.27.18 10.34

Lab Sample Id: 600489-007

Date Collected: 09.26.18 12.00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B % Moisture:

Tech: Analyst: ALJ ALJ

Date Prep:

10.03.18 08.00

Basis:

Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	10.03.18 15.18	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	10.03.18 15.18	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	70-130	10.03.18 15.18		
4-Bromofluorobenzene		460-00-4	103	%	70-130	10.03.18 15.18		



# Flagging Criteria



- Page 69 of 76
- 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.

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.



### LT Environmental, Inc.

**EP USA 005** 

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3064901

Matrix: Solid

7663267-1-BKS

Prep Method: Date Prep:

E300P

mg/kg

MB Sample Id:

7663267-1-BLK

LCS Sample Id:

LCSD Sample Id: 7663267-1-BSD

10.01.18

**Parameter** 

MR Result Amount

LCS LCS Result

LCSD LCSD

Limits %RPD RPD Limit Units

0

Analysis Date

Flag

Chloride

<4.99

Spike

250

%Rec 258 103

%Rec Result 259 104

90-110

20

10.01.18 10:13

Analytical Method: Inorganic Anions by EPA 300 Seq Number:

3064901

Matrix: Soil

Prep Method: Date Prep: E300P 10.01.18

Parent Sample Id:

600488-005

MS Sample Id: 600488-005 S

MSD Sample Id:

600488-005 SD

**Parameter** 

Parent Result

MS Result

MS

**MSD MSD** Result

1400

Limits

Limits

%RPD RPD Limit Units 20

Analysis Flag Date

Chloride

Amount 1200 253

%Rec 1400 79

%Rec 79

90-110 0 mg/kg 10.01.18 11:49

X

Analytical Method: Inorganic Anions by EPA 300

3064901

Spike

Matrix: Soil

Prep Method:

E300P

10.01.18 Date Prep:

mg/kg

Parent Sample Id:

600661-012

MS Sample Id:

600661-012 S

MSD Sample Id: 600661-012 SD %RPD RPD Limit Units

10.01.18 10:30

**Parameter** 

Seq Number:

Parent Result

Spike Amount 250

MS MS Result %Rec 247 99

**MSD** Result 248

**MSD** %Rec 99 90-110

0 20

Analysis Flag Date

Chloride

< 0.858

Analytical Method: TPH by SW8015 Mod Seq Number:

3064912

Matrix: Solid

Prep Method:

TX1005P

09.28.18 Date Prep:

MB Sample Id: 7663248-1-BLK MB Spike LCS Sample Id: 7663248-1-BKS LCS LCS LCSD LCSD

Limits

Flag

LCSD Sample Id:

%RPD RPD Limit Units

7663248-1-BSD

Analysis

Flag

**Parameter** Result %Rec Date Result Amount Result %Rec Gasoline Range Hydrocarbons (GRO) 987 99 1080 70-135 9 20 09.28.18 19:29 < 8.00 1000 108 mg/kg 09.28.18 19:29 1000 100 70-135 8 20 Diesel Range Organics (DRO) 1000 1080 108 < 8.13 mg/kg

**Surrogate** 1-Chlorooctane

o-Terphenyl

MB %Rec 96

100

MB Flag

LCS LCS %Rec Flag

120

114

LCSD

LCSD

%Rec

125

115

Limits

70-135

70-135

Units

%

%

Analysis Date 09.28.18 19:29

09.28.18 19:29

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

[D] = 100\*(C-A) / BRPD = 200\* | (C-E) / (C+E) |[D] = 100 \* (C) / [B]

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

LCS = Laboratory Control Sample A = Parent Result

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

Flag

Flag



### **QC Summary** 600489

### LT Environmental, Inc.

**EP USA 005** 

Analytical Method: TPH by SW8015 Mod

Seq Number: 3064919

MB Sample Id:

7663251-1-BLK

Matrix: Solid

LCS Sample Id: 7663251-1-BKS

Prep Method: TX1005P

Date Prep: 09.28.18

LCSD Sample Id: 7663251-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	< 8.00	1000	1020	102	930	93	70-135	9	20	mg/kg	09.29.18 08:58	
Diesel Range Organics (DRO)	<8.13	1000	1040	104	941	94	70-135	10	20	mg/kg	09.29.18 08:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		117		111		70-135	%	09.29.18 08:58
o-Terphenyl	112		113		98		70-135	%	09.29.18 08:58

Analytical Method: TPH by SW8015 Mod

Seq Number:

Parent Sample Id:

3064912

600266-005

Matrix: Soil

MS Sample Id: 600266-005 S

Prep Method:

TX1005P

Date Prep: 09.28.18

MSD Sample Id: 600266-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	< 7.99	999	965	97	981	98	70-135	2	20	mg/kg	09.28.18 20:26
Diesel Range Organics (DRO)	< 8.12	999	987	99	1010	101	70-135	2	20	mg/kg	09.28.18 20:26

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		116		70-135	%	09.28.18 20:26
o-Terphenyl	102		104		70-135	%	09.28.18 20:26

Analytical Method: TPH by SW8015 Mod

Seq Number:

3064919

600489-006 Parent Sample Id:

Matrix: Soil

MS Sample Id: 600489-006 S

Prep Method:

TX1005P

Date Prep: 09.28.18

MSD Sample Id: 600489-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lin	nit Units	Analysis Date
Gasoline Range Hydrocarbons (GRO)	8.67	999	987	98	974	97	70-135	1	20	mg/kg	09.29.18 09:55
Diesel Range Organics (DRO)	<8.12	999	1010	101	1000	100	70-135	1	20	mg/kg	09.29.18 09:55

MS MS %Rec Flag	MSD MSD %Rec Flag	Limits	Units	Analysis Date
118	115	70-135	%	09.29.18 09:55
100	96	70-135	%	09.29.18 09:55
	118	%Rec         Flag         %Rec         Flag           118         115	%Rec         Flag         %Rec         Flag           118         115         70-135	%Rec         Flag         %Rec         Flag           118         115         70-135         %

Flag



### QC Summary 600489

### LT Environmental, Inc.

**EP USA 005** 

<b>Analytical Method:</b>	BTEX by EPA 8021	1B						]	Prep Meth	od: SW	5030B	
Seq Number:	3065147			Matrix:	Solid				Date Pr	rep: 10.0	2.18	
MB Sample Id:	7663421-1-BLK		LCS Sar	nple Id:	7663421-	1-BKS		LC	SD Sampl	e Id: 766	3421-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPI	RPD Lim	nit Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.0806	80	0.0858	85	70-130	6	35	mg/kg	10.02.18 18:24	
Toluene	< 0.00202	0.101	0.0762	75	0.0825	82	70-130	8	35	mg/kg	10.02.18 18:24	
Ethylbenzene	< 0.00202	0.101	0.0860	85	0.0947	94	70-130	10	35	mg/kg	10.02.18 18:24	
m,p-Xylenes	< 0.00102	0.202	0.167	83	0.189	94	70-130	12	35	mg/kg	10.02.18 18:24	
o-Xylene	< 0.00202	0.101	0.0856	85	0.0948	94	70-130	10	35	mg/kg	10.02.18 18:24	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Rec			Limits	Units	Analysis Date	
1,4-Difluorobenzene	96		1	06		100		7	70-130	%	10.02.18 18:24	
4-Bromofluorobenzene	90		1	02		105		-	70-130	%	10.02.18 18:24	

Analytical Method:BTEX by EPA 8021BPrep Method:SW5030BSeq Number:3065219Matrix:SolidDate Prep:10.03.18MB Sample Id:7663470-1-BLKLCS Sample Id:7663470-1-BKSLCSD Sample Id:7663470-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date
Benzene	< 0.00201	0.100	0.105	105	0.101	100	70-130	4	35	mg/kg	10.03.18 08:13
Toluene	< 0.00201	0.100	0.0967	97	0.0954	94	70-130	1	35	mg/kg	10.03.18 08:13
Ethylbenzene	< 0.00201	0.100	0.110	110	0.106	105	70-130	4	35	mg/kg	10.03.18 08:13
m,p-Xylenes	< 0.00402	0.201	0.219	109	0.211	104	70-130	4	35	mg/kg	10.03.18 08:13
o-Xylene	< 0.00201	0.100	0.109	109	0.106	105	70-130	3	35	mg/kg	10.03.18 08:13
	MD	MD			CC	- ~~-	- I 00	D 7	,	TT . *4	A 1

Surrogate	%Rec	Flag	%Rec	Flag	%Rec	Flag	Limits	Cints	Date
1,4-Difluorobenzene	91		114		96		70-130	%	10.03.18 08:13
4-Bromofluorobenzene	76		100		97		70-130	%	10.03.18 08:13

Analytical Method:BTEX by EPA 8021BPrep Method:SW5030BSeq Number:3065147Matrix:SoilDate Prep:10.02.18

Parent Sample Id: 600989-001 MS Sample Id: 600989-001 S MSD Sample Id: 600989-001 SD

Parent Spike MS MS MSD MSD Limits %RPD RPD Limit Units Analysis

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limi	t Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0724	72	0.0845	85	70-130	15	35	mg/kg	10.02.18 19:07	
Toluene	< 0.00200	0.100	0.0660	66	0.0758	76	70-130	14	35	mg/kg	10.02.18 19:07	X
Ethylbenzene	< 0.00200	0.100	0.0676	68	0.0785	79	70-130	15	35	mg/kg	10.02.18 19:07	X
m,p-Xylenes	< 0.00401	0.200	0.131	66	0.154	77	70-130	16	35	mg/kg	10.02.18 19:07	X
o-Xylene	< 0.00200	0.100	0.0672	67	0.0791	79	70-130	16	35	mg/kg	10.02.18 19:07	X

Surrogate	%Rec	Flag	MSD %Rec	Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		101		70-130	%	10.02.18 19:07
4-Bromofluorobenzene	106		100		70-130	%	10.02.18 19:07

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

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

LCS = Laboratory Control Sample

A = Parent Result C = MS/LCS Result

E = MSD/LCSD Result

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



### LT Environmental, Inc.

**EP USA 005** 

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B Seq Number: 3065219 Matrix: Soil Date Prep: 10.03.18

MS Sample Id: 600489-004 S MSD Sample Id: 600489-004 SD Parent Sample Id: 600489-004

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Lim	it Units	Analysis Date	Flag
Benzene	< 0.00201	0.101	0.0742	73	0.0242	24	70-130	102	35	mg/kg	10.03.18 14:13	XF
Toluene	< 0.00201	0.101	0.0664	66	0.0220	22	70-130	100	35	mg/kg	10.03.18 14:13	XF
Ethylbenzene	< 0.00201	0.101	0.0744	74	0.0218	22	70-130	109	35	mg/kg	10.03.18 14:13	XF
m,p-Xylenes	< 0.00102	0.201	0.148	74	0.0412	21	70-130	113	35	mg/kg	10.03.18 14:13	XF
o-Xylene	< 0.00201	0.101	0.0750	74	0.0211	21	70-130	112	35	mg/kg	10.03.18 14:13	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		94		70-130	%	10.03.18 14:13
4-Bromofluorobenzene	107		82		70-130	%	10.03.18 14:13

Setting the Standard since 1990

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			SAMPLE CUSTODY	lah if received by 5:00		Contract TAT	7 Day TAT	5 Day TAT	ys)											of Collection	200000		١,	クロシープラーハフク	Unit 103 /mil	c. Pelmian C	_				
Date Time:		03/2/2019 Date Time:	MUST BE DOC	3									H	4	4	41	2'	2'	2'	Sample Depth				<u></u>	4 /	1,00	20			<u>s</u>	ູດ
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y:	<b>J.</b>		H TIME SAMPLES C		TRRP Checklist	Level 3 (CLP Forms)	Level III Std QC+ Forms	Level II Std QC	Data Deliverable information		W V		25	5	ر ا	5	>	7	3	# of bottles		034818008	1		Nen	Er USA	Project Information		www.xenco.com	704-5251)	210-509-3334)
		d	HANGE POSSE						le information	1										NaOH/Zn Acetate HNO3	um bo	8	MOOGO	1		500			com		
Custody Seal #	Kelinquisned by:	Relinquished By:	SSION, INCLUDING			UST / RG -411	TRRP Level IV	Level IV (Full Data Pkg			Z									H2SO4 NaOH NaHSO4	of preserved bottle		the feel	6							
פ			COURIER DELIVERY					ata Pkg /raw data)					XX	KIXI	XX	$1 \sim N$	$ \chi \chi $	X   X   ,	X	NONE  RIC	<u> </u>	On	ly	137		802			Xenco Quote #	7100	D
Preserved where applicable	Date Time:	Date Time:						a)					X	$\langle  \chi  \rangle$	X	X	XX	$ \chi \gamma$	$\langle \rangle$	11/1/ Chlo.	10 20	RQ e	<u>6R</u> (3	10, M 10, C	(RO)	861		Analyti	uote #	FIIOEIIK, MIZORA (400-309-0900)	in Admin (A)
	7. 4	10:34	FED-EX/UF					***************************************	Notes:																			Analytical Information		00-000-000)	77 3EE 22001
On ice	Received By:	Received By:	FED-EX/UPS: Iracking#							-																		'n	Xenco Job#		
Cooler Je		RR	CCCI	182							***************************************		₹	4			next		ave					<del></del>		<del></del>			2		
Se Se			7009590			***************************************										- 1	t to Pa	,	depth	Field Comments	A = Air	M =MM	OW =Ocea	= TS	P W T	S = Soll/Se		Mat	7	: }	
O - O			5%	7																ments	¥	O = Oil Ww≡ Waste Water	OW =Ocean/Sea Water WI = Wipe	SW = Surface water SL = Sludge	DW = Drinking Water P = Product	W = Water S = Soll/Sed/Solid		Matrix Codes		۷	



### After printing this label:

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

**Warning**: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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



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



Client: LT Environmental, Inc.

Date/ Time Received: 09/27/2018 10:34:00 AM

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

Work Order #: 600489

Temperature Measuring device used: R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6*Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace?	N/A	

"TO TTAIO!	TOO GAMPIOS HAVE 2010 HOA	аориоо .	1471	
Must be o	ompleted for after-hours de	livery of samples prior to pla	icing in the refrigerator	
Analyst:		PH Device/Lot#:		
	Checklist completed by:	Brianna Teel	Date: 09/27/2018	
	Checklist reviewed by:	Jessica Kramer	Date: 09/28/2018	