District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 12 2015
RECEIVED

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

nAB1504834000
nAB1504829926

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company RKI E&P, LLC 246289	Contact Zack Laird
Address 210 Park Ave. – Ste. 900, OKC, OK 73102	Telephone No. 405-742-2696
Facility Name: RDX 17-14	Facility Type : Oil and Gas Well

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39845

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	17	26S	30E		990 FSL		1650FWL	Eddy

Latitude: 32.0379455094502 **Longitude:** -103.906704631448

NATURE OF RELEASE

Type of Release. Produced Water	Volume of Release: 30Bbls	Volume Recovered: 30Bbls
Source of Release Tanks over ran because tank level sensor failed to work properly.	Date and Hour of Occurrence 02/12/15 – 0730hrs MT	Date and Hour of Discovery 02/12/15 – 0830hrs MT
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Heather Patterson (left VM on office line)	
By Whom? Zack Laird	Date and Hour: 02/12/15 – 1530hrs CT	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*

Water tanks over ran because tank level gauge/switch failed to function and activate transfer pump, so fluid transfer did not occur.

Turned transfer pump on, repaired switch, recovered fluid with vac truck and will wash lined secondary containment.

Describe Area Affected and Cleanup Action Taken.*

All fluid remained in secondary containment berm, 30/30Bbls recovered.

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

Signature:

Printed Name: Zack Laird

Title: Sr. EHS Manager

E-mail Address: ZLaird@rkixp.com

Date: 02/12/15 Phone: 405-987-2213

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 2/17/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 3/17/15

2RP-2813

* Attach Additional Sheets If Necessary

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	nAB1504834000
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: Jim.Raley@dvn.com	Incident # *(assigned by OCD)*: nAB150483400
Contact mailing address: 5315 Buena Vista Drive, Carlsbad NM	

Location of Release Source

Latitude 32.0379455094502 Longitude -103.906704631448
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX 17-14	Site Type: Oil and Gas Well
Date Release Discovered: 02/12/2015	API# *(if applicable)*: 30-015-39845

Unit Letter	Section	Township	Range	County
N	17	26S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 30	Volume Recovered (bbls): 30
	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:
Water tanks over ran because tank level gauge/switch failed to function and activate transfer pump, so fluid transfer did not occur. Turned transfer pump on, repaired switch, recovered fluid with vac truck and will wash lined secondary containment.

$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21\ (\frac{ft^3}{bbl\ equivalent})} * estimated\ porosity\ (\%) + recovered\ fluids\ (bbl)$$

State of New Mexico
Oil Conservation Division

Incident ID	nAB1504834000
District RP	
Facility ID	
Application ID	

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Immediate notice was given by Zach Laird, to "EMNRD" Heather Patterson via phone/voicemail on February 12, 2015.

Initial Response

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

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

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

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 7/27/2023

email: Jim.Raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nAB1504834000
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nAB1504834000
District RP	
Facility ID	
Application ID	

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

Printed Name: Jim Raley Title: Environmental Professional

Signature: Date: 7/27/2023

email: Jim.Raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Shelly Wells Date: 7/28/2023

Incident ID	nAB1504834000
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 7/27/2023

email: Jim.Raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Shelly Wells Date: 7/28/2023

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

Closure Approved by: Ashley Maxwell Date: 9/26/2023

Printed Name: Ashley Maxwell Title: Environmental Specialist

CLOSURE REQUEST ADDENDUM

RDX 17-14

Eddy County, New Mexico

Incident Number nAB1504834000

Prepared for:

WPX Energy Permian, LLC

Carlsbad ● Midland ● San Antonio ● Lubbock ● Hobbs ● Lafayette

SYNOPSIS

In response to a meeting with the New Mexico Oil Conservation Division (NMOCD) for the denial of a Closure Request Addendum (CRA), which addressed the only concern of inadequate determination of depth to groundwater from a denial associated with a previously submitted Closure Report (CR) for the RDX 17-14 (Site). Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following updated CRA that includes the CR with the complete remediation and laboratory analytical summaries. The previous CR and CRA were denied on March 27, 2023, and June 21, 2023, respectively due to the following reason(s):

March 27, 2023

- "The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater."

June 21, 2023

- "Closure denied due to incomplete closure report. The following are missing: scaled site map/sampling diagram, description of remediation activities, photographs of the remediated site, and final sampling lab analyses."

Shelly Wells and Ashley Maxwell from NMOCD requested to resubmit this CRA with the updated groundwater determination and specifically the CR as an attachment, due to their inability to reference the CR in the NMOCD permitting files (OCD Permitting - Incidents (nm.gov)). Based on the updated CRA, correspondence and requests from NMOCD, WPX is requesting No Further Action (NFA) for Incident Number nAB1504834000.

SITE LOCATION AND BACKGROUND

The Site is located in Unit N, Section 17, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.0379455094502° N, 103.906704631448° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management. (**Figure 1** in **Appendix A**).

On February 12, 2015, overflow of storage tanks caused approximately 30 barrels (bbls) of produced water to be released into a lined secondary containment. Vacuum trucks were immediately dispatched and recovered approximately 30 bbls of fluid. WPX reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141), which was received by the NMOCD on February 12, 2015, and was subsequently assigned Incident Number nAB1504834000.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

Etech characterized the Site according to Table I, 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) considering depth to groundwater and the proximity to:

- Any continuously flowing watercourse or any other significant watercourse;
- Any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- An occupied permanent residence, school, hospital, institution or church;

- A spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;
- Any freshwater well or spring;
- Incorporated municipal boundaries or a defined municipal fresh water well field covered under a municipal ordinance;
- A wetland;
- A subsurface mine;
- An unstable area (i.e. high karst potential); and
- A 100-year floodplain.

The nearest permitted water well used in the CR with depth to water data was New Mexico State of the Engineer (NMOSE) well C-01361, located approximately 1.8 miles north of the Site. NMOSE well C-01361 has a reported depth of water 184 feet below ground surface (bgs) from 1953. Due to the distance of the well from the Site and the age of the groundwater measurement (greater than 0.5 miles and greater than 25 yrs old), NMOCD determined the data to be insufficient to assist with the regional groundwater depth estimate at the Site.

Since the submittal of the CR, on December 16, 2020, Talon LPE drilled a soil boring (MW-1), located approximately 0.5 miles east of the Site on the RDX 17 #3 well pad. Using a truck mounted drill rig equipped with hollow stem auger, the soil boring was advanced to a total depth of 107 feet bgs. No fluids were observed throughout the drilling process nor after a 72-hour observation period. Following the observation period, the boring was plugged and abandoned according to the appropriate regulations. Well records for referenced wells and/or soil borings are provided in **Appendix B**.

All other potential receptors are not within the established buffers in NMAC 19.15.29.12. Receptor details from the site characterization are included in **Figure 1** in **Appendix A**.

Based on the results from the desktop review and further supported regional depth to groundwater at the Site, the following Closure Criteria was applied:

Constituents of Concern (COCs)	Laboratory Analytical Method	Closure Criteria
Chloride	(Environmental Protection Agency) EPA 300.0	20,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	EPA 8015 M/D	2,500 mg/kg
TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO)	EPA 8021B	1,000 mg/kg
Benzene	EPA 8021B	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA 8021B	50 mg/kg

CLOSURE REQUEST

Following the recent completion of soil boring MW-1, located approximately 0.5 miles from the Site, depth to water determination at the Site has been further supported to be greater than 100 feet bgs. With the supplemental groundwater data, WPX has addressed all concerns in the denial responses from the NMOCD. NFA appears warranted at this time and the Site should be respectfully considered for Closure by the NMOCD. The previously submitted CR can be referenced in **Appendix C**.

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (281) 702-2329 or joseph@etechenv.com or Anna Byers at (575) 200-6754 or anna@etechenv.com.

Sincerely,

Etech Environmental and Safety Solutions, Inc.

Anna Byers
Senior Geologist

Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

Appendix A: Figure 1: Site Map

Appendix B: Referenced Well Records

Appendix C: Previously Submitted Closure Request

APPENDIX A

Figure 1: Site Map

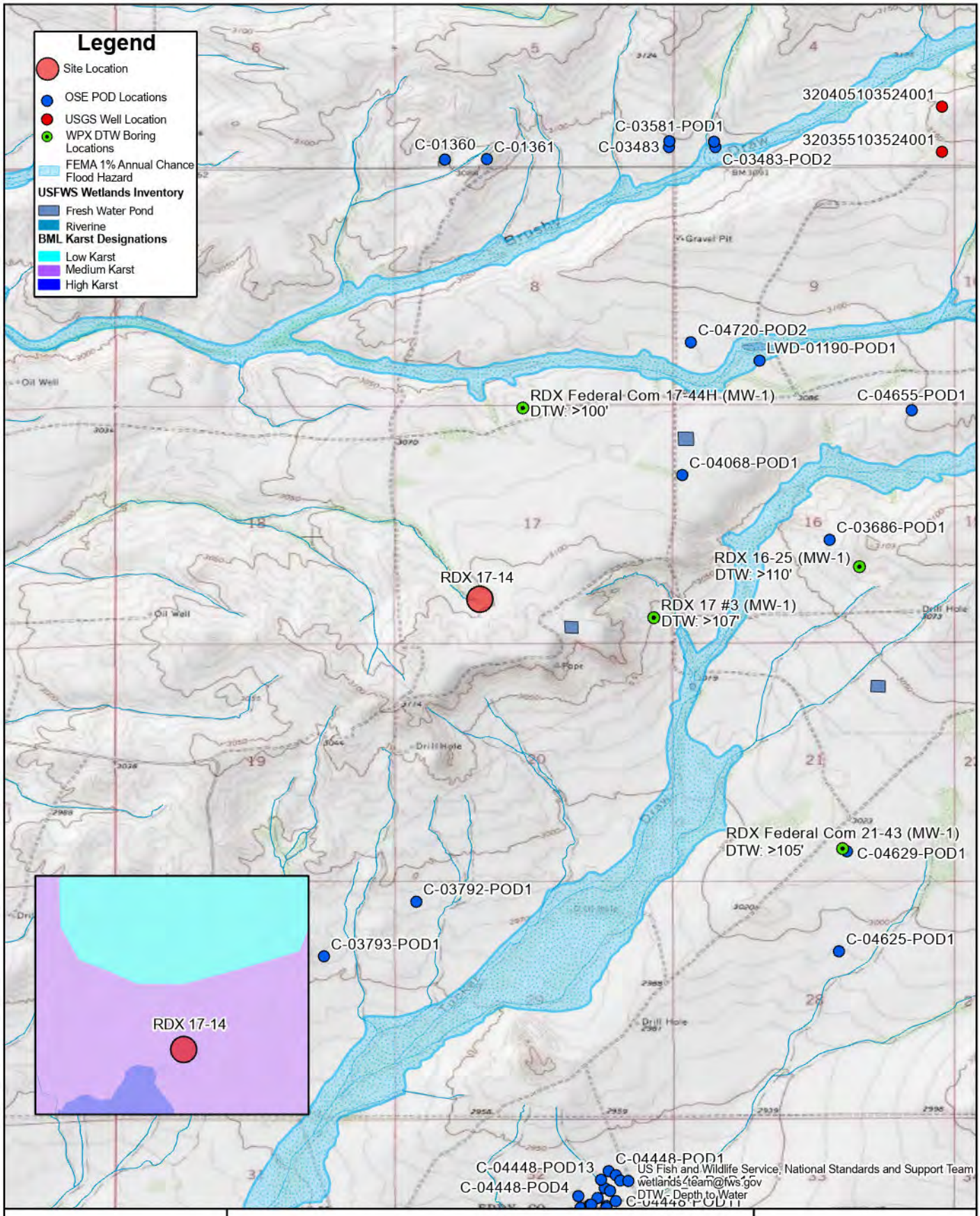

FIGURE 1

Site Map

WPX ENERGY PERMIAN, LLC
RDX 17-14
Unit N Sec 17 T26S R30E
Eddy County, New Mexico

N

0 1,500 3,000 Feet

APPENDIX B

Referenced Well Records

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 01361	3	4	3	05	26S	30E	603240	3548157

Driller License: 95 **Driller Company:** FOLK DRILLING CO.

Driller Name:

Drill Start Date: 05/16/1952 **Drill Finish Date:** 06/01/1952 **Plug Date:**

Log File Date: 11/17/1953 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 12.75 **Depth Well:** 775 feet **Depth Water:** 184 feet

Water Bearing Stratifications:	Top	Bottom	Description
	195	230	Sandstone/Gravel/Conglomerate
	255	295	Sandstone/Gravel/Conglomerate
	535	570	Sandstone/Gravel/Conglomerate
	695	735	Sandstone/Gravel/Conglomerate
	740	750	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	145	353
	418	555
	530	755

Meter Number: 16559 **Meter Make:** SIEMENS

Meter Serial Number: L1254817 **Meter Multiplier:** 100.0000

Number of Dials: 8 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
07/01/2014	2014	432977	A	RPT		0	
09/30/2014	2014	542020	A	RPT		33.464	
11/20/2014	2014	71523	A	RPT		0	
12/31/2014	2014	10869200	A	RPT		33.137	
04/01/2015	2015	20528000	A	RPT		29.642	
07/01/2015	2015	32166600	A	RPT		35.718	
10/02/2019	2019	41391130	A	RPT		2830.904	
01/02/2020	2020	44360000	A	RPT		911.113	
12/31/2021	2021	53003390	A	WEB		2652.559	X

**YTD Meter Amounts:	Year	Amount
	2014	66.601
	2015	65.360
	2019	2830.904

2020	911.113
2021	2652.559

Meter Number:	16560	**Meter Make:**	MASTERMETER
Meter Serial Number:	425026402	**Meter Multiplier:**	1.0000
Number of Dials:	9	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
01/03/2012	2012	796624	A	RPT		0	
04/01/2014	2014	322335	R	RPT	Meter Rollover	161.335	
07/01/2014	2014	422977	A	RPT		30.886	
10/01/2014	2014	542008	A	RPT		36.529	
11/20/2014	2014	597747	A	RPT		17.106	
11/21/2014	2014	71523	A	RPT		0	
12/31/2014	2014	108692	A	RPT		11.407	
02/01/2015	2015	144071	A	RPT		10.857	
03/02/2015	2015	177073	A	RPT		10.128	
04/01/2015	2015	204100	A	RPT		8.294	
04/30/2015	2015	246672	A	RPT		13.065	
05/31/2015	2015	286863	A	RPT		12.334	
07/01/2015	2015	329411	A	RPT		13.058	
08/01/2015	2015	350757	A	RPT		6.551	
08/31/2015	2015	384122	A	RPT		10.239	
10/01/2015	2015	413202	A	RPT		8.924	
10/01/2015	2015	0	A	RPT	Meter Change	0	
10/31/2015	2015	2767800	A	RPT		8.494	
11/30/2015	2015	5636900	A	RPT		8.805	
12/31/2015	2015	7565000	A	RPT		5.917	
01/31/2016	2016	9247200	A	RPT		5.162	
02/29/2016	2016	12569900	A	RPT		10.197	
03/31/2016	2016	14698800	A	RPT		6.533	
04/30/2016	2016	16601309	A	RPT		5.839	
05/30/2016	2016	19235300	A	RPT		8.083	
06/30/2016	2016	22955800	A	RPT		11.418	
07/31/2016	2016	26437114	A	RPT		10.684	
08/30/2016	2016	30077563	A	RPT		11.172	
09/30/2016	2016	32631836	A	RPT		7.839	
10/31/2016	2016	35193200	A	RPT		7.861	
11/30/2016	2016	37896100	A	RPT		8.295	
12/31/2016	2016	41023100	A	RPT		9.596	
04/04/2019	2019	99357190	A	RPT		179.021	

**YTD Meter Amounts:	Year	Amount
	2012	0
	2014	257.263
	2015	116.666
	2016	102.679

	2019	179.021

x

HRL COMPLIANCE SOLUTIONS

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW-1		Location: RDX 17 #3	
Date: 12/8/2020		Client: WPX Energy	
Drilling Method: Air Rotary	Sampling Method: None	Logged By: J. Linn, PG	Drilled By: Talon LPE
Gravel Pack Type: 10/20 Sand	Gravel Pack Depth Interval: 3 Bags	Seal Type: None / Seal Depth Interval: None	Latitude: 32.036765
Casing Type: PVC / Diameter: 2-inch / Depth Interval: 0-102 feet bgs		Boring Total Depth (ft. BGS): 107	Longitude: -103.895993
Screen Type: PVC / Slot: 0.010-inch / Diameter: 2-inch / Depth Interval: 102-107 ft		Well Total Depth (ft. BGS): 107	Depth to Water (ft. BTOC): > 107 / DTW Date: 12/16/2020

Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion
0	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand	
5										
10										
15										
20										
25										
30	NM	L	D	N	N	NM	SP	NS	Same as above with slight increase in coarse sand and gravel	
35										
40	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand with very slight silt	
45										
50										
55	NM	L	D	N	N	NM	SP	NS	Pale orange poorly graded fine sand	
60	NM	L	D	N	N	NM	SW	NS	Pale orange well graded fine sand	
65	NM	M	SL M	N	N	NM	SM	NS	Pale red orange clayey silty fine sand with minor coarse sand and gravel	
70										
75										
80										
85										
90	NM	L	SL M	N	N	NM	SP	NS	Pale orange poorly sorted fine sand - TD 107' BGS	
95										
100										
105										

APPENDIX C

Previously Submitted Closure Report

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

April 22, 2020

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

RE: Closure Request
WPX Energy Permian, LLC
RDX 17-14 (2RP-2813)
Incident ID NAB1504834000
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request detailing soil sampling and excavation activities at the RDX 17-14 (Site) in Unit N, Section 17, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to investigate and address an area associated with a produced water release contained within a lined earthen berm, following Site decommissioning activities. Based on the excavation activities and results of the soil sampling events, WPX requests no further action (NFA).

BACKGROUND

On February 12, 2015, failure of a tank level gauge caused the water tanks to overfill, releasing approximately 30 barrels (bbls) of produced water into the lined secondary containment. Vacuum trucks were dispatched and recovered 30 bbls of produced water from the impacted area. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) which was received by the NMOCD on February 12, 2015 and was assigned Remediation Permit Number 2RP-2813 and Incident NAB1504834000 (Attachment 1). An updated Form C-141 reflecting the correct Unit, initially reported as Unit A, is also attached.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on known aquifer properties and an identified water well. The nearest permitted water well with depth to water data is New Mexico Office of the State Engineer (NMOSE) water well C-01361 (Carlsbad Basin), located approximately 9,820 feet north of the Site.

Water well C-01361 has a reported depth to water of 184 feet bgs and is approximately 3 feet higher in elevation than the Site. The closest significant watercourse to the Site is an intermittent stream, identified by United States Geological Survey (USGS) National Hydrography Dataset (NHD) with an Annual Mean Flow of less than 1 cubic feet per second (cfs), located approximately 1,009 feet northwest of the Site. The Site is greater 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 or overlying a subsurface mine or unstable area. The Site is located in a medium-potential karst area. Potential receptors identified during site characterization are displayed in Figure 1.

Based on these criteria, the following NMOCD Table 1 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
- 20,000 mg/kg chloride.

Remediation activities were completed in conjunction with P&A reclamation efforts for the Site. As such, LTE applied a reclamation standard for chloride of 600 mg/kg for the top four feet of the subject release area as required under Title 19, Chapter 15, Part 29, Section 13, Subsection D(1) of the NMAC.

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING

On March 17, 2020, LTE conducted site investigative activities concurrently with delineation events. Utilizing heavy equipment, six potholes (PH01 through PH06) were advanced within the area of the formerly lined tank battery to verify the absence of impacts associated with the subject release. Field screening was conducted at every 1-foot interval and up to 4-feet bgs for volatile aromatic hydrocarbons using a photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The locations of delineation boreholes are presented on Figure 2. Photographic documentation was conducted during the Site visit and a Photographic Log is included in Attachment 3.

EXCAVATION ACTIVITIES

Between March 18, 2020 and March 26, 2020, LTE was on site to oversee excavation activities within the release area. Excavation activities were directed by field screening soil samples for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test

strips. During excavation activities, five-point composite confirmation soil samples were collected from the floor (labeled as "FS") and sidewalls (samples labeled as "SW") of the excavation area. Each soil sample represented at most 200 square feet. The excavation area and soil sample locations are depicted on Figure 3. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Initial laboratory analytical results indicated additional remediation efforts were required in the areas represented by soil samples FS05 at 1 to 2 feet bgs, FS07 at 0.3 to 1 foot bgs, FS11 at 2 to 3 feet bgs and SW01 at 0 to 4 feet bgs. Remediation in these areas was confirmed via laboratory analytical results of soil samples FS05A at 4 feet bgs, FS07A at 0.5 to 2 feet bgs, FS11A at 4 feet bgs and SW06 at 0 to 4 feet bgs, respectively.

Approximately 1,220 cubic yards of impacted soil was removed from the excavation. Generated material was transported to the R360 Halfway Facility in Hobbs, New Mexico for disposal under WPX approved manifests. The excavation area measured a total of approximately 6,986 square feet in area and ranged in depth from 0 to 4 feet bgs. Complete laboratory analytical reports are included in Attachment 4. Additionally, photographic documentation was also conducted throughout the remediation process and is included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results of all final excavation confirmation soil samples indicate compliance with the Closure Criteria. Laboratory analytical results are summarized in Table 1.

CONCLUSIONS

Remediation of impacted soils was successfully achieved as demonstrated through soil confirmation sampling. The excavation was backfilled with locally sourced materials and recontoured to match pre-existing conditions. The area was reseeded with a BLM approved seed mix. In addition, the reclamation project will be monitored for vegetation growth by WPX personnel. WPX is requesting an NFA determination and closure of Remediation Permit Number 2RP-2813 and Incident ID NAB1504834000.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Joseph S. Hernandez
Project Geologist

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

cc: Lynda Laumbach, WPX
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, BLM

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Form C-141
Attachment 2	Lithologic/Soil Sampling Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES

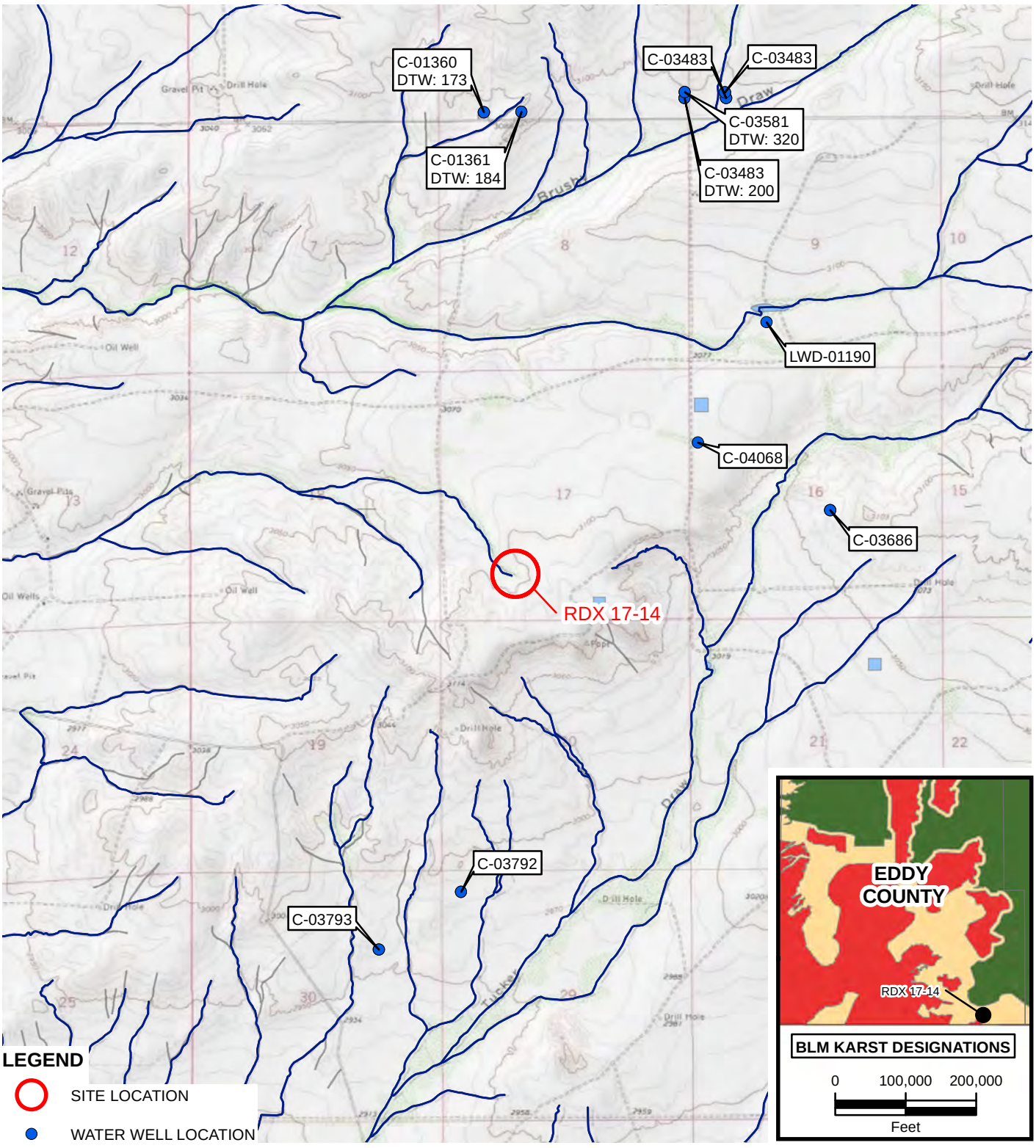

FIGURE 1
SITE LOCATION MAP
RDX 17-14
UNIT N SEC 17 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC

P:\WPX\GIS\MXD\034820011_RDX 17-14\034820011_FIG01_RECEPTOR_SL_2020.mxd

IMAGE COURTESY OF ESRI

LEGEND

SOIL SAMPLE

TANK BATTERY EARTHEN BERM

0 50 100

Feet

N

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
RDX 17-14
UNIT N SEC 17 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

P:\WPX\GIS\MXD\034820011_RDX 17-14\034820011_FIG02_DELINEATION_2020.mxd

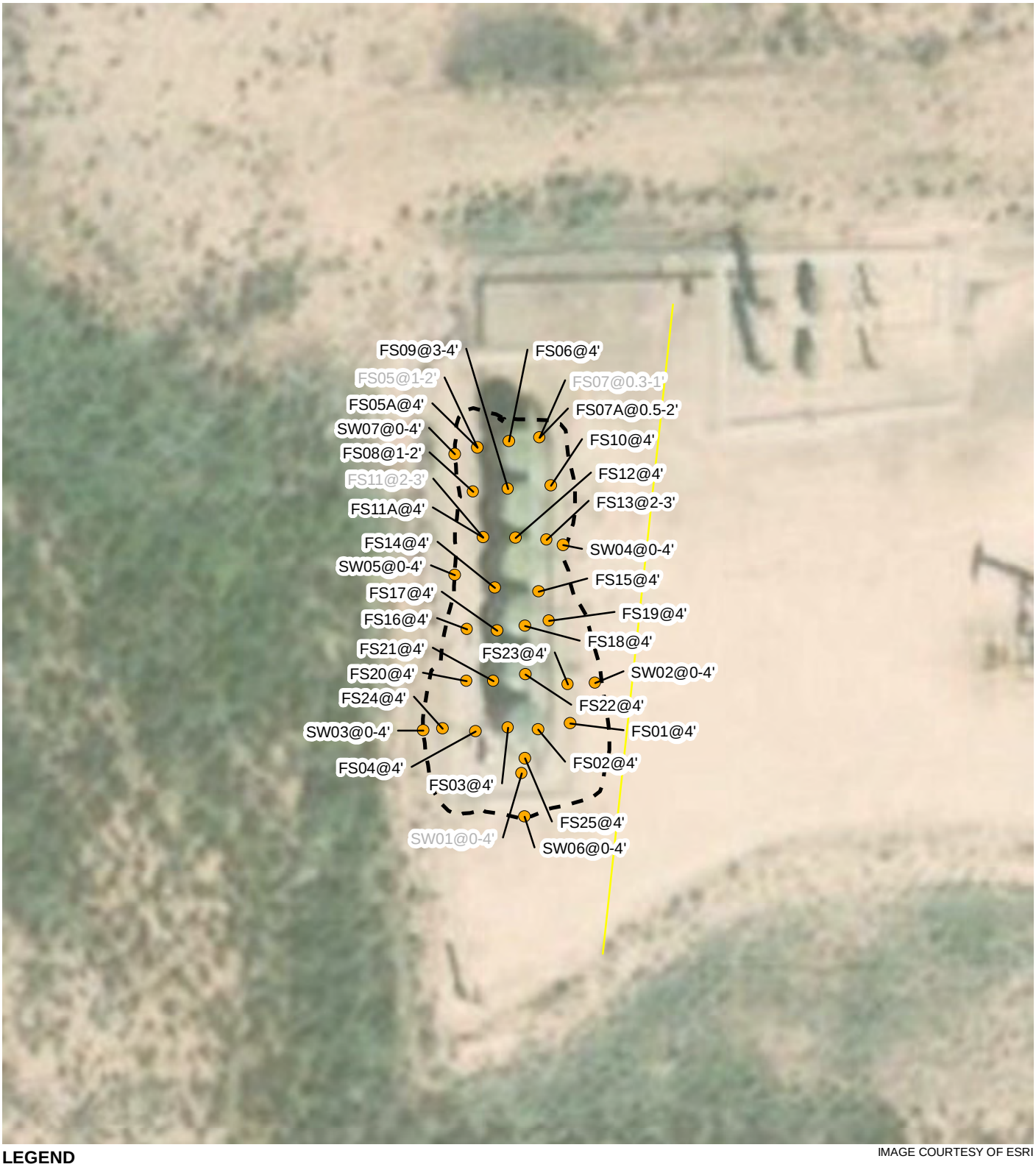

IMAGE COURTESY OF ESRI

LEGEND

- SOIL SAMPLE
- GAS/PIPELINE
- EXCAVATION EXTENT

0 50 100

Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
RDX 17-14
UNIT N SEC 17 T26S R30E
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

P:\WPX\GIS\MXD\034820011_RDX 17-14\034820011_FIG03_EXCAVATION_2020.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS

RDX 17-14
REMEDIATION PERMIT NUMBER 2RP-2813
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)	Application
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**	
FS01	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	824*	In-situ
FS02	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	307*	In-situ
FS03	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,470*	In-situ
FS04	4	03/23/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	7,710*	In-situ
FS05	1 - 2	03/20/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	**710***	Excavated
FS05A	4	03/26/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	974*	In-situ
FS06	1 - 2	03/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	212*	In-situ
FS07	0.3 - 1	03/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<126	3280	569	**3,280**	**3,850**	209*	Excavated
FS07A	0.5 - 2	03/26/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	267	<50.2	267	267	273*	In-situ
FS08	1 - 2	03/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	155	<50.1	155	155	399*	In-situ
FS09	3 - 4	03/20/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	117	<50.0	117	117	499*	In-situ
FS10	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	52.2	<50.3	52.2	52.2	572*	In-situ
FS11	2 - 3	03/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	98.1	<50.1	98.1	98.1	**645***	Excavated
FS11A	4	03/26/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	90.7	<50.3	90.7	90.7	388*	In-situ
FS12	4	03/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	64.2	<50.2	64.2	64.2	190*	In-situ
FS13	2 - 3	03/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	570	77.1	570	647	274*	In-situ
FS14	4	03/23/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	248	<50.2	248	248	188*	In-situ
FS15	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	506	74.9	506	581	441*	In-situ
FS16	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	89.4	<50.2	89.4	89.4	575*	In-situ
FS17	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	307	<49.8	307	307	299*	In-situ
FS18	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	133	<49.8	133	133	424*	In-situ
FS19	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	255	<50.1	255	255	312*	In-situ
FS20	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	1,570*	In-situ
FS21	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	284	<50.2	284	284	525*	In-situ
FS22	4	03/23/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	354	55.7	354	410	1,110*	In-situ

TABLE 1
SOIL ANALYTICAL RESULTS

RDX 17-14
REMEDIATION PERMIT NUMBER 2RP-2813
EDDY COUNTY, NEW MEXICO
WPX ENERGY PERMIAN, LLC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)	Application
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**	
FS23	4	03/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	166	<49.9	166	166	3,000*	In-situ
FS24	4	03/26/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	2,050*	In-situ
FS25	4	03/26/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,940*	In-situ
SW01	0 - 4	03/24/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	**648***	Excavated
SW02	0 - 4	03/20/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	160	<50.0	160	160	343*	In-situ
SW03	0 - 4	03/26/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	317*	In-situ
SW04	0.3 - 4	03/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	263	<49.8	263	263	136*	In-situ
SW05	0.3 - 3	03/20/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	165	<50.2	165	165	420*	In-situ
SW06	0 - 4	03/26/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	193*	In-situ
SW07	0 - 4	03/26/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	439*	In-situ

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources 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	NAB1504834000
District RP	2RP-2813
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party WPX Energy Permian, LLC.	OGRID
Contact Name Lynda Laumbach	Contact Telephone 575-725-1647
Contact email lynda.laumbach@wpxenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.03794 Longitude -103.90670
(NAD 83 in decimal degrees to 5 decimal places)

Site Name RDX 17-14	Site Type Oil and Gas Well
Date Release Discovered 02/12/2015	API# *(if applicable)* 30-015-39845

Unit Letter	Section	Township	Range	County
N	17	26S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) 30 bbls	Volume Recovered (bbls) 30 bbls
	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 Water tanks over ran because tank level gauge/switch failed to function and activate transfer pump, so fluid transfer did not occur.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1504834000
District RP	2RP-2813
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☑ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? > 25bbls

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Zach Laird notified Heather Patterson (VM left on office line) on 2/12/2015 @ 15:30 hrs CST

Initial Response

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

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

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

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: _____ Date: _____

email: lynda.laumbach@wpxenergy.com Telephone: 575-725-1647

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1504834000
District RP	2RP-2813
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAB1504834000
District RP	2RP-2813
Facility ID	
Application ID	

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: _____ Date: _____

email: lynda.laumbach@wpxenergy.com Telephone: 575-725-1647

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1504834000
District RP	2RP-2813
Facility ID	
Application ID	

Closure

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

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

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

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

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

☑ Description of remediation activities

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

Printed Name: Lynda Laumbach Title: Environmental Specialist

Signature: Lynda Laumbach Date: 06/18/2020

email: lynda.laumbach@wpxenergy.com Telephone: 575-725-1647

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOGS

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

Identifier: PH01	Date: 3/17/20
Project Name: RDX 17-14	RP Number: 2RP-2813
Logged By: JH	Method: Hand Auger
Hole Diameter: backhoe @ 1.5-2.0'	Total Depth: 4'
Lat/Long:	Field Screening: PID, Chloride

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.0 ft

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						0			SW Brown, well graded (med-coarse) w/ gravel. No Plasticity. No odor
0943	D	BDL	1.7			0.5			
0944	M	BDL	3.0			1			" " trace organics
0946		BDL	1.3			2			" " no gravel, trace organics
0948		BDL	6.1			3			" "
0949		BDL	2.0			4			" " w/ gravel & caliche. no organics
						5			TD @ 4.0'
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Identifier:	Date:
Pit02	3/17/20
Project Name:	**RP Number:**
ROX-17-14	2RP-2813
Logged By: JH	**Method:** Hand Auger
Hole Diameter: bucket 1.5-2.0	**Total Depth:** 4.0 feet

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID, Chloride

Comments: TD @ 4.0 ft

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1015 M	BDL	45.0	Y		0.5			SW well graded sand (fine-med) Brown, odor & sheen. No. Plst
1016		8.9	Y		1			" " Brn/red organics
1017		0.5			2			~~SPT~~ at SPSC Dk. Brn (fine) organics, no odor L. Plasticity
1018		17.1			3			" " odor
1020		2.3			4			SPSC Brn/red (fine) no odor. med plasticity, org.
					5			TD @ 4.0 ft
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH03	3/17/20
Project Name:	**RP Number:**
ROX 77-14	2RP-5813

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: JH	Method: Hand Auger
Lat/Long:	Field Screening: PID, Chloride
Hole Diameter: backhoe @ 1-5-2.0'	Total Depth:

Comments: TD @ 4.0 ft

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1048 M	BDL	113.7			0			
					0.5			SWSM (med-coarse) odor, No plasticity Lt. Brown/tan, sheen
1050	BDL	256.7			1			" " trace organics, Brown
1051	BDL	3.3			2			SPSC, Brown (Dark). (Fine) Low Med plasticity organic traces, sheen no odor
1052	BDL	7.4			3			SPSL, Brown (Fine) Med. plasticity, organics. no odor
1054	BDL	4.6			4			SL, Brown red. High plasticity. organic traces no odor.
					5			TD @ 4.0 ft
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH04	Date: 3/17/20
Project Name: RDX 17-14	RP Number: dRP-3813
Logged By: JH	Method: Hand Auger
Hole Diameter: ~~3~~ bucket 1.5-2.0'	Total Depth: 4.0'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID, Chloride

Comments: TD @ 4.0 feet

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1137	D	BDL	10.4	~~Y~~N		0–0.5			SWSM (med-coarse) tan/lt. Br. odor. No plastics
1139	M	BDL	1.1	N		1			SPSL (Brown Dk.) Fine org, med plasticity no odor
1140	M	BDL	1.0			2			" "
1141	M	BDL	0.9			3			" "
1142	M	BDL	1.0			4			SL Brown (Dark) fine org, no odor high plasticity
						5–12			TD @ 4.0 ft

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

Identifier: PH05	Date: 3/17/20
Project Name: ROx 17-14	RP Number: 2RP-2813
Logged By: JH	Method: Hand Auger
Lat/Long:	Field Screening: PID, Chloride
Hole Diameter: Bulklove @ 3" 1.5-2.0'	Total Depth: 4.0'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 4.0 ft

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1154 M	424	7.8			0.5			SWSM Brown (coarse) Org. N. Plast
1157 M	608	1.3			1			SPSM Co (fine) Brown org. Non Plast
1158 M	556	1.5			2			" "
1159 M	848	0.9			3			" "
1200 M	1872	0.9			4			" "
					5			@ TD @ 4.0 ft
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH06	Date: 3/17/20
Project Name: ROW 17-14	RP Number: 2RP-2813
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: JH / Method: Hand Auger
Lat/Long:	Field Screening: PID, Chloride / Hole Diameter: hydrohammer 1.5-2.0' / Total Depth: 4.0'
Comments: TD @ 4.0 feet	

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
1255 D	148	46.1	Y		0.5			SUSM Brown/tan (med) odor, org. @ N.Plast.
1256 M	280	0.1	N		1			SPSM Brown (~~Coarse~~ Fine) No. odor, org. NP
1257	556	2.0			2			" "
1258	664	1.6			3			" "
1259	556	1.4			4			SL Brown/red no odor, org. med. plasticity
					5			TD @ 4.0'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of the Site facing northeast.

Photograph 2: View of the Site facing northwest.

Photograph 3: Northeast view of the Site during delineation activities.

Photograph 4: Southeast view of the Site during delineation activities.

RDX 17-14
32.03794, -103.90670
Photographs Taken: March 17, 2020 though March 31, 2020

A proud member of WSP

PHOTOGRAPHIC LOG

Photograph 5: Southeast view of the Site during excavation events.

Photograph 6: Northeast view of the Site during excavation events.

Photograph 7: Southwest view of the Site during excavation events.

Photograph 8: North view of the Site during excavation events.

RDX 17-14
32.03794, -103.90670
Photographs Taken: March 17, 2020 though March 31, 2020

A proud member of WSP

PHOTOGRAPHIC LOG

Photograph 9: South view of the Site following excavation events.

Photograph 10: Northwest view of the Site following excavation events.

Photograph 11: Northeast view of the Site following excavation events.

Photograph 12: North view of the Site following excavation events.

RDX 17-14
32.03794, -103.90670
Photographs Taken: March 17, 2020 though March 31, 2020

A proud member of WSP

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 656468

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

24-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

24-MAR-20

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

Reference: XENCO Report No(s): **656468**
RDX 17-14
Project Address:

Chris McKisson:

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) 656468. 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. 656468 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 Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS05	S	03-20-20 14:35	1 - 2 ft	656468-001
FS11	S	03-20-20 11:41	2 - 3 ft	656468-002
FS12	S	03-20-20 14:22	4 ft	656468-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *656468*

Report Date: *24-MAR-20*
Date Received: *03/23/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120698 BTEX by EPA 8021B

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

Certificate of Analysis Summary 656468

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 08:25 am
Report Date: 24-MAR-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	656468-001		656468-002		656468-003			
	Field Id:	FS05		FS11		FS12			
	Depth:	1-2 ft		2-3 ft		4- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Mar-20-20 14:35		Mar-20-20 11:41		Mar-20-20 14:22			
BTEX by EPA 8021B	***Extracted:***	Mar-23-20 10:35		Mar-23-20 10:35		Mar-23-20 10:35			
	Analyzed:	Mar-23-20 12:53		Mar-23-20 12:33		Mar-23-20 13:34			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
m,p-Xylenes		<0.00396	0.00396	<0.00398	0.00398	<0.00399	0.00399		
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Xylenes, Total		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	Mar-23-20 11:09		Mar-23-20 11:09		Mar-23-20 11:09			
	Analyzed:	Mar-23-20 11:47		Mar-23-20 12:04		Mar-23-20 12:10			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		710	9.94	645	9.98	190	10.1		
TPH by SW8015 Mod	***Extracted:***	Mar-23-20 17:30		Mar-23-20 17:30		Mar-23-20 17:30			
	Analyzed:	Mar-24-20 06:44		Mar-24-20 07:04		Mar-24-20 07:24			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.1	50.1	<50.2	50.2		
Diesel Range Organics (DRO)		<50.2	50.2	98.1	50.1	64.2	50.2		
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.1	50.1	<50.2	50.2		
Total GRO-DRO		<50.2	50.2	98.1	50.1	64.2	50.2		
Total TPH		<50.2	50.2	98.1	50.1	64.2	50.2		

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

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-001	Date Collected:	03.20.20 14.35	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**710**	9.94	mg/kg	03.23.20 11.47		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.24.20 06.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-135	03.24.20 06.44	
o-Terphenyl	84-15-1	77	%	70-135	03.24.20 06.44	

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-001	Date Collected:	03.20.20 14.35	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.23.20 12.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.23.20 12.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.23.20 12.53	
4-Bromofluorobenzene	460-00-4	99	%	70-130	03.23.20 12.53	

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-002	Date Collected:	03.20.20 11.41	Sample Depth:	2 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**645**	9.98	mg/kg	03.23.20 12.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.24.20 07.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**98.1**	50.1	mg/kg	03.24.20 07.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.24.20 07.04	U	1
Total GRO-DRO	PHC628	**98.1**	50.1	mg/kg	03.24.20 07.04		1
Total TPH	PHC635	**98.1**	50.1	mg/kg	03.24.20 07.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	03.24.20 07.04	
o-Terphenyl	84-15-1	81	%	70-135	03.24.20 07.04	

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-002	Date Collected:	03.20.20 11.41	Sample Depth:	2 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 12.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 12.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.23.20 12.33	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.23.20 12.33	

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-003	Date Collected:	03.20.20 14.22	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**190**	10.1	mg/kg	03.23.20 12.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120700				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.24.20 07.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**64.2**	50.2	mg/kg	03.24.20 07.24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.24.20 07.24	U	1
Total GRO-DRO	PHC628	**64.2**	50.2	mg/kg	03.24.20 07.24		1
Total TPH	PHC635	**64.2**	50.2	mg/kg	03.24.20 07.24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	03.24.20 07.24	
o-Terphenyl	84-15-1	80	%	70-135	03.24.20 07.24	

Certificate of Analytical Results 656468

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656468-003	Date Collected:	03.20.20 14.22	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.23.20 13.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 13.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.23.20 13.34	
1,4-Difluorobenzene	540-36-3	98	%	70-130	03.23.20 13.34	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 656468

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699512-1-BLK — LCS Sample Id: 7699512-1-BKS — LCSD Sample Id: 7699512-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	258	103	90-110	0	20	mg/kg	03.23.20 11:36	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Soil — Date Prep: 03.23.20
Parent Sample Id: 656468-001 — MS Sample Id: 656468-001 S — MSD Sample Id: 656468-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	710	199	908	99	911	101	90-110	0	20	mg/kg	03.23.20 11:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Soil — Date Prep: 03.23.20
Parent Sample Id: 656472-006 — MS Sample Id: 656472-006 S — MSD Sample Id: 656472-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	848	199	1040	96	1040	96	90-110	0	20	mg/kg	03.23.20 13:20	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120700 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699591-1-BLK — LCS Sample Id: 7699591-1-BKS — LCSD Sample Id: 7699591-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	878	88	957	96	70-135	9	35	mg/kg	03.24.20 00:20	
Diesel Range Organics (DRO)	<50.0	1000	778	78	834	83	70-135	7	35	mg/kg	03.24.20 00:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		101		123		70-135	%	03.24.20 00:20
o-Terphenyl	102		104		113		70-135	%	03.24.20 00:20

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120700 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699591-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.24.20 00:00	

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

QC Summary 656468

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120700 | Matrix: Soil | Date Prep: 03.23.20
Parent Sample Id: 656458-024 | MS Sample Id: 656458-024 S | MSD Sample Id: 656458-024 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	857	86	838	84	70-135	2	35	mg/kg	03.24.20 01:21	
Diesel Range Organics (DRO)	<50.0	1000	753	75	756	76	70-135	0	35	mg/kg	03.24.20 01:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		86		70-135	%	03.24.20 01:21
o-Terphenyl	84		84		70-135	%	03.24.20 01:21

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120698 | Matrix: Solid | Date Prep: 03.23.20
MB Sample Id: 7699586-1-BLK | LCS Sample Id: 7699586-1-BKS | LCSD Sample Id: 7699586-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.121	121	70-130	11	35	mg/kg	03.23.20 11:11	
Toluene	<0.00200	0.100	0.103	103	0.115	115	70-130	11	35	mg/kg	03.23.20 11:11	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.108	108	71-129	11	35	mg/kg	03.23.20 11:11	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.221	111	70-135	10	35	mg/kg	03.23.20 11:11	
o-Xylene	<0.00200	0.100	0.102	102	0.112	112	71-133	9	35	mg/kg	03.23.20 11:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	03.23.20 11:11
4-Bromofluorobenzene	95		97		95		70-130	%	03.23.20 11:11

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120698 | Matrix: Soil | Date Prep: 03.23.20
Parent Sample Id: 656468-001 | MS Sample Id: 656468-001 S | MSD Sample Id: 656468-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.124	125	0.118	119	70-130	5	35	mg/kg	03.23.20 11:52	
Toluene	<0.00198	0.0992	0.120	121	0.113	114	70-130	6	35	mg/kg	03.23.20 11:52	
Ethylbenzene	<0.00198	0.0992	0.114	115	0.107	108	71-129	6	35	mg/kg	03.23.20 11:52	
m,p-Xylenes	<0.00397	0.198	0.235	119	0.222	112	70-135	6	35	mg/kg	03.23.20 11:52	
o-Xylene	<0.00198	0.0992	0.117	118	0.109	110	71-133	7	35	mg/kg	03.23.20 11:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		109		70-130	%	03.23.20 11:52
4-Bromofluorobenzene	93		95		70-130	%	03.23.20 11:52

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

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

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

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

Final 1.000

Chain of Custody

Work Order No: 456498

XENCO LABORATORIES

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

www.xenco.com Page 1 of 2

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	RDX 17-14	Turn Around	
Project Number:	034820011	Routine ☐	
P.O. Number:	2RP-2813	Rush: 24 hr	
Sampler's Name:	Jeremy Hill	Due Date: 3/24/20	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.0	Thermometer ID		
Received Intact:	(Yes) No	TNM007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	3	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS05	s	3/20/20	1435	1-2'	1	X	X	X	Composite
FS11	s	"	1141	2-3'	1	"	"	"	"
FS12	s	"	1422	4'	"	"	"	"	"
	s								
	s								
	s								
	s								
	s								
	s								
	s								

ANALYSIS REQUEST

Work Order Notes

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/23/20 8:00am	2		3/23/20 08:25
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.23.2020 08.25.00 AM

Work Order #: 656468

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.23.2020

Checklist reviewed by: Jessica Kramer Date: 03.24.2020

Jessica Kramer

Analytical Report 656473

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

25-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

25-MAR-20

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

Reference: XENCO Report No(s): **656473**
RDX 17-14
Project Address:

Chris McKisson:

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) 656473. 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. 656473 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 Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW02	S	03-20-20 09:06	0 - 4 ft	656473-001
FS06	S	03-20-20 14:32	1 - 2 ft	656473-002
FS07	S	03-20-20 10:19	0.3 - 1.0 ft	656473-003
FS08	S	03-20-20 10:23	1 - 2.0 ft	656473-004
FS09	S	03-20-20 14:29	3 - 4 ft	656473-005
SW04	S	03-20-20 11:26	0.3 - 4 ft	656473-006
SW05	S	03-20-20 11:35	0.3 - 3 ft	656473-007
FS13	S	03-20-20 11:49	2 - 3 ft	656473-008

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *656473*

Report Date: *25-MAR-20*
Date Received: *03/23/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120698 BTEX by EPA 8021B

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

Certificate of Analysis Summary 656473

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 08:25 am
Report Date: 25-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	656473-001		656473-002		656473-003		656473-004		656473-005		656473-006	
	Field Id:	SW02		FS06		FS07		FS08		FS09		SW04	
	Depth:	0-4 ft		1-2 ft		0.3-1.0 ft		1-2.0 ft		3-4 ft		0.3-4 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-20-20 09:06		Mar-20-20 14:32		Mar-20-20 10:19		Mar-20-20 10:23		Mar-20-20 14:29		Mar-20-20 11:26	
BTEX by EPA 8021B	***Extracted:***	Mar-23-20 10:35		Mar-23-20 10:35		Mar-23-20 10:35		Mar-23-20 10:35		Mar-23-20 10:35		Mar-23-20 10:35	
	Analyzed:	Mar-23-20 16:53		Mar-23-20 17:14		Mar-23-20 16:36		Mar-23-20 17:55		Mar-23-20 18:15		Mar-23-20 18:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
m,p-Xylenes		<0.00396	0.00396	<0.00398	0.00398	<0.00398	0.00398	<0.00403	0.00403	<0.00396	0.00396	<0.00401	0.00401
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Xylenes, Total		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00202	0.00202	<0.00198	0.00198	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	Mar-23-20 11:09		Mar-23-20 11:09		Mar-23-20 11:09		Mar-23-20 11:09		Mar-23-20 11:09		Mar-23-20 11:09	
	Analyzed:	Mar-23-20 13:32		Mar-23-20 13:39		Mar-23-20 13:57		Mar-23-20 14:03		Mar-23-20 14:09		Mar-23-20 14:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		343	49.7	212	10.1	209	10.0	399	10.1	499	9.94	136	9.98
TPH by SW8015 Mod	***Extracted:***	Mar-23-20 17:30		Mar-23-20 17:30		Mar-23-20 17:30		Mar-23-20 17:30		Mar-23-20 17:30		Mar-23-20 17:30	
	Analyzed:	Mar-24-20 03:22		Mar-24-20 03:42		Mar-24-20 06:24		Mar-24-20 05:23		Mar-24-20 05:44		Mar-24-20 06:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<126	126	<50.1	50.1	<50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		160	50.0	<50.0	50.0	3280	251	155	50.1	117	50.0	263	49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	569	251	<50.1	50.1	<50.0	50.0	<49.8	49.8
Total GRO-DRO		160	50.0	<50.0	50.0	3280	126	155	50.1	117	50.0	263	49.8
Total TPH		160	50.0	<50.0	50.0	3850	126	155	50.1	117	50.0	263	49.8

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analysis Summary 656473

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 08:25 am
Report Date: 25-MAR-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	656473-007		656473-008					
	Field Id:	SW05		FS13					
	Depth:	0.3-3 ft		2-3 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Mar-20-20 11:35		Mar-20-20 11:49					
BTEX by EPA 8021B	***Extracted:***	Mar-23-20 10:35		Mar-23-20 10:35					
	Analyzed:	Mar-23-20 18:56		Mar-23-20 19:16					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00202	0.00202				
Toluene		<0.00201	0.00201	<0.00202	0.00202				
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202				
m,p-Xylenes		<0.00402	0.00402	<0.00403	0.00403				
o-Xylene		<0.00201	0.00201	<0.00202	0.00202				
Xylenes, Total		<0.00201	0.00201	<0.00202	0.00202				
Total BTEX		<0.00201	0.00201	<0.00202	0.00202				
Chloride by EPA 300	***Extracted:***	Mar-23-20 11:09		Mar-23-20 11:09					
	Analyzed:	Mar-23-20 14:21		Mar-23-20 14:27					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		420	10.1	274	10.0				
TPH by SW8015 Mod	***Extracted:***	Mar-23-20 17:30		Mar-23-20 17:30					
	Analyzed:	Mar-24-20 06:44		Mar-24-20 07:04					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<49.9	49.9				
Diesel Range Organics (DRO)		165	50.2	570	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	77.1	49.9				
Total GRO-DRO		165	50.2	570	49.9				
Total TPH		165	50.2	647	49.9				

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-001	Date Collected:	03.20.20 09.06	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**343**	49.7	mg/kg	03.23.20 13.32		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.24.20 03.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**160**	50.0	mg/kg	03.24.20 03.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.24.20 03.22	U	1
Total GRO-DRO	PHC628	**160**	50.0	mg/kg	03.24.20 03.22		1
Total TPH	PHC635	**160**	50.0	mg/kg	03.24.20 03.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	03.24.20 03.22	
o-Terphenyl	84-15-1	114	%	70-135	03.24.20 03.22	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-001	Date Collected:	03.20.20 09.06	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.23.20 16.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.23.20 16.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.23.20 16.53	
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.23.20 16.53	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-002	Date Collected:	03.20.20 14.32	Sample Depth:	1 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**212**	10.1	mg/kg	03.23.20 13.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.24.20 03.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.24.20 03.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.24.20 03.42	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.24.20 03.42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.24.20 03.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.24.20 03.42	
o-Terphenyl	84-15-1	112	%	70-135	03.24.20 03.42	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-002	Date Collected:	03.20.20 14.32	Sample Depth:	1 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 17.14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 17.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	03.23.20 17.14	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.23.20 17.14	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-003	Date Collected:	03.20.20 10.19	Sample Depth:	0.3 - 1.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**209**	10.0	mg/kg	03.23.20 13.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<126	126	mg/kg	03.24.20 06.24	U	5
Diesel Range Organics (DRO)	C10C28DRO	**3280**	251	mg/kg	03.24.20 06.24		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**569**	251	mg/kg	03.24.20 06.24		5
Total GRO-DRO	PHC628	**3280**	126	mg/kg	03.24.20 06.24		5
Total TPH	PHC635	**3850**	126	mg/kg	03.24.20 06.24		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.24.20 06.24	
o-Terphenyl	84-15-1	115	%	70-135	03.24.20 06.24	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-003	Date Collected:	03.20.20 10.19	Sample Depth:	0.3 - 1.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 16.36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 16.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.23.20 16.36	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.23.20 16.36	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-004	Date Collected:	03.20.20 10.23	Sample Depth:	1 - 2.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**399**	10.1	mg/kg	03.23.20 14.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.24.20 05.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**155**	50.1	mg/kg	03.24.20 05.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.24.20 05.23	U	1
Total GRO-DRO	PHC628	**155**	50.1	mg/kg	03.24.20 05.23		1
Total TPH	PHC635	**155**	50.1	mg/kg	03.24.20 05.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.24.20 05.23	
o-Terphenyl	84-15-1	107	%	70-135	03.24.20 05.23	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-004	Date Collected:	03.20.20 10.23	Sample Depth:	1 - 2.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.23.20 17.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.23.20 17.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	75	%	70-130	03.23.20 17.55	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.23.20 17.55	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-005	Date Collected:	03.20.20 14.29	Sample Depth:	3 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**499**	9.94	mg/kg	03.23.20 14.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.24.20 05.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**117**	50.0	mg/kg	03.24.20 05.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.24.20 05.44	U	1
Total GRO-DRO	PHC628	**117**	50.0	mg/kg	03.24.20 05.44		1
Total TPH	PHC635	**117**	50.0	mg/kg	03.24.20 05.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.24.20 05.44	
o-Terphenyl	84-15-1	113	%	70-135	03.24.20 05.44	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-005	Date Collected:	03.20.20 14.29	Sample Depth:	3 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.23.20 18.15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.23.20 18.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.23.20 18.15	
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.23.20 18.15	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-006	Date Collected:	03.20.20 11.26	Sample Depth:	0.3 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**136**	9.98	mg/kg	03.23.20 14.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.24.20 06.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**263**	49.8	mg/kg	03.24.20 06.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.24.20 06.03	U	1
Total GRO-DRO	PHC628	**263**	49.8	mg/kg	03.24.20 06.03		1
Total TPH	PHC635	**263**	49.8	mg/kg	03.24.20 06.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	03.24.20 06.03	
o-Terphenyl	84-15-1	127	%	70-135	03.24.20 06.03	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-006	Date Collected:	03.20.20 11.26	Sample Depth:	0.3 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.23.20 18.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 18.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.23.20 18.35	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.23.20 18.35	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-007	Date Collected:	03.20.20 11.35	Sample Depth:	0.3 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**420**	10.1	mg/kg	03.23.20 14.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**165**	50.2	mg/kg	03.24.20 06.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.24.20 06.44	U	1
Total GRO-DRO	PHC628	**165**	50.2	mg/kg	03.24.20 06.44		1
Total TPH	PHC635	**165**	50.2	mg/kg	03.24.20 06.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	03.24.20 06.44	
o-Terphenyl	84-15-1	121	%	70-135	03.24.20 06.44	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-007	Date Collected:	03.20.20 11.35	Sample Depth:	0.3 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.23.20 18.56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.23.20 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.23.20 18.56	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.23.20 18.56	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-008	Date Collected:	03.20.20 11.49	Sample Depth:	2 - 3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 11.09	Basis:	Wet Weight
Seq Number:	3120631				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**274**	10.0	mg/kg	03.23.20 14.27		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.23.20 17.30	Basis:	Wet Weight
Seq Number:	3120748				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.24.20 07.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**570**	49.9	mg/kg	03.24.20 07.04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**77.1**	49.9	mg/kg	03.24.20 07.04		1
Total GRO-DRO	PHC628	**570**	49.9	mg/kg	03.24.20 07.04		1
Total TPH	PHC635	**647**	49.9	mg/kg	03.24.20 07.04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.24.20 07.04	
o-Terphenyl	84-15-1	109	%	70-135	03.24.20 07.04	

Certificate of Analytical Results 656473

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	03.23.20 08.25
Lab Sample Id:	656473-008	Date Collected:	03.20.20 11.49	Sample Depth:	2 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 10.35	Basis:	Wet Weight
Seq Number:	3120698				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.23.20 19.16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.23.20 19.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.23.20 19.16	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.23.20 19.16	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 656473

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699512-1-BLK — LCS Sample Id: 7699512-1-BKS — LCSD Sample Id: 7699512-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	258	103	90-110	0	20	mg/kg	03.23.20 11:36	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Soil — Date Prep: 03.23.20
Parent Sample Id: 656468-001 — MS Sample Id: 656468-001 S — MSD Sample Id: 656468-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	710	199	908	99	911	101	90-110	0	20	mg/kg	03.23.20 11:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120631 — Matrix: Soil — Date Prep: 03.23.20
Parent Sample Id: 656472-006 — MS Sample Id: 656472-006 S — MSD Sample Id: 656472-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	848	199	1040	96	1040	96	90-110	0	20	mg/kg	03.23.20 13:20	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120748 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699618-1-BLK — LCS Sample Id: 7699618-1-BKS — LCSD Sample Id: 7699618-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	859	86	834	83	70-135	3	35	mg/kg	03.24.20 00:20	
Diesel Range Organics (DRO)	<50.0	1000	855	86	828	83	70-135	3	35	mg/kg	03.24.20 00:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		128		125		70-135	%	03.24.20 00:20
o-Terphenyl	121		109		105		70-135	%	03.24.20 00:20

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120748 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699618-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.24.20 00:00	

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

QC Summary 656473

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120748 | Matrix: Soil | Date Prep: 03.23.20
Parent Sample Id: 656472-002 | MS Sample Id: 656472-002 S | MSD Sample Id: 656472-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	996	100	1090	109	70-135	9	35	mg/kg	03.24.20 01:21	
Diesel Range Organics (DRO)	<50.0	999	1040	104	1150	115	70-135	10	35	mg/kg	03.24.20 01:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		126		70-135	%	03.24.20 01:21
o-Terphenyl	113		122		70-135	%	03.24.20 01:21

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120698 | Matrix: Solid | Date Prep: 03.23.20
MB Sample Id: 7699586-1-BLK | LCS Sample Id: 7699586-1-BKS | LCSD Sample Id: 7699586-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.121	121	70-130	11	35	mg/kg	03.23.20 11:11	
Toluene	<0.00200	0.100	0.103	103	0.115	115	70-130	11	35	mg/kg	03.23.20 11:11	
Ethylbenzene	<0.00200	0.100	0.0968	97	0.108	108	71-129	11	35	mg/kg	03.23.20 11:11	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.221	111	70-135	10	35	mg/kg	03.23.20 11:11	
o-Xylene	<0.00200	0.100	0.102	102	0.112	112	71-133	9	35	mg/kg	03.23.20 11:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		109		70-130	%	03.23.20 11:11
4-Bromofluorobenzene	95		97		95		70-130	%	03.23.20 11:11

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120698 | Matrix: Soil | Date Prep: 03.23.20
Parent Sample Id: 656468-001 | MS Sample Id: 656468-001 S | MSD Sample Id: 656468-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.124	125	0.118	119	70-130	5	35	mg/kg	03.23.20 11:52	
Toluene	<0.00198	0.0992	0.120	121	0.113	114	70-130	6	35	mg/kg	03.23.20 11:52	
Ethylbenzene	<0.00198	0.0992	0.114	115	0.107	108	71-129	6	35	mg/kg	03.23.20 11:52	
m,p-Xylenes	<0.00397	0.198	0.235	119	0.222	112	70-135	6	35	mg/kg	03.23.20 11:52	
o-Xylene	<0.00198	0.0992	0.117	118	0.109	110	71-133	7	35	mg/kg	03.23.20 11:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		109		70-130	%	03.23.20 11:52
4-Bromofluorobenzene	93		95		70-130	%	03.23.20 11:52

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

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

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

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

Chain of Custody

Work Order No: 656473

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	RDX 17-14	Turn Around	
Project Number:	03482011	Routine	☑
P.O. Number:	2RP-3813	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.0	Thermometer ID	
Received Intact:	(Yes) No	TNM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	8

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW02	s	3/20/20	0906	0-4'	1	X	X	X	Composite
FS06	s		1432	1-2'					
FS07	s		1019	0.3-1.0'					
FS08	s		1023	1-2.0'					
FS09	s		1429	3-4'					
SW04	s		1126	0.3-4'					
SW05	s		1135	0.3-3'					
FS13	s		1149	2-3'					
	s								
	s								

Work Order Notes

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

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			3/23/20 9:00am	2		3/23/20 08:25
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.23.2020 08.25.00 AM

Work Order #: 656473

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.23.2020

Checklist reviewed by: Jessica Kramer Date: 03.24.2020

Jessica Kramer

Analytical Report 656558

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

27-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

27-MAR-20

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

Reference: XENCO Report No(s): **656558**
RDX 17-14
Project Address:

Chris McKisson:

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) 656558. 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. 656558 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 Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS10	S	03-23-20 09:41	4 ft	656558-001
FS14	S	03-23-20 10:20	4 ft	656558-002
FS15	S	03-23-20 10:24	4 ft	656558-003
FS16	S	03-23-20 10:28	4 ft	656558-004
FS17	S	03-23-20 10:32	4 ft	656558-005
FS18	S	03-23-20 10:37	4 ft	656558-006
FS19	S	03-23-20 10:42	4 ft	656558-007
FS20	S	03-23-20 11:26	4 ft	656558-008
FS21	S	03-23-20 11:29	4 ft	656558-009
FS22	S	03-23-20 11:33	4 ft	656558-010
FS23	S	03-23-20 11:36	4 ft	656558-011
FS01	S	03-23-20 12:19	4 ft	656558-012
FS02	S	03-23-20 12:21	4 ft	656558-013
FS03	S	03-23-20 12:27	4 ft	656558-014
FS04	S	03-23-20 12:30	4 ft	656558-015

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *656558*

Report Date: *27-MAR-20*
Date Received: *03/23/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120699 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120724 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3120922 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 656558-015.

Certificate of Analysis Summary 656558

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 03:40 pm
Report Date: 27-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	656558-001		656558-002		656558-003		656558-004		656558-005		656558-006	
	Field Id:	FS10		FS14		FS15		FS16		FS17		FS18	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-23-20 09:41		Mar-23-20 10:20		Mar-23-20 10:24		Mar-23-20 10:28		Mar-23-20 10:32		Mar-23-20 10:37	
BTEX by EPA 8021B	*Extracted:*	Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00	
	Analyzed:	Mar-24-20 04:47		Mar-24-20 05:08		Mar-24-20 05:28		Mar-24-20 05:49		Mar-23-20 21:15		Mar-23-20 21:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00397	0.00397	<0.00400	0.00400	<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Xylenes, Total		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00	
	Analyzed:	Mar-24-20 11:41		Mar-24-20 11:59		Mar-24-20 12:18		Mar-24-20 12:24		Mar-24-20 12:30		Mar-24-20 12:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		572	9.94	188	9.88	441	10.1	575	10.1	299	10.1	424	9.94
TPH by SW8015 Mod	*Extracted:*	Mar-24-20 17:20		Mar-24-20 17:20		Mar-24-20 17:20		Mar-24-20 17:30		Mar-24-20 09:00		Mar-24-20 17:30	
	Analyzed:	Mar-24-20 23:08		Mar-24-20 23:28		Mar-24-20 23:48		Mar-25-20 10:10		Mar-24-20 23:48		Mar-25-20 02:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.2	50.2	<50.3	50.3	<50.2	50.2	<49.8	49.8	<49.8	49.8
Diesel Range Organics (DRO)		52.2	50.3	248	50.2	506	50.3	89.4	50.2	307	49.8	133	49.8
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.2	50.2	74.9	50.3	<50.2	50.2	<49.8	49.8	<49.8	49.8
Total GRO-DRO		52.2	50.3	248	50.2	506	50.3	89.4	50.2	307	49.8	133	49.8
Total TPH		52.2	50.3	248	50.2	581	50.3	89.4	50.2	307	49.8	133	49.8

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analysis Summary 656558

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 03:40 pm
Report Date: 27-MAR-20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	656558-007		656558-008		656558-009		656558-010		656558-011		656558-012	
	Field Id:	FS19		FS20		FS21		FS22		FS23		FS01	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-23-20 10:42		Mar-23-20 11:26		Mar-23-20 11:29		Mar-23-20 11:33		Mar-23-20 11:36		Mar-23-20 12:19	
BTEX by EPA 8021B	*Extracted:*	Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00	
	Analyzed:	Mar-23-20 21:55		Mar-23-20 22:16		Mar-23-20 22:36		Mar-23-20 22:57		Mar-23-20 23:17		Mar-23-20 23:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Xylenes, Total		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00	
	Analyzed:	Mar-24-20 12:42		Mar-24-20 12:48		Mar-24-20 12:55		Mar-24-20 13:01		Mar-24-20 13:07		Mar-24-20 13:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		312	10.0	1570	49.9	525	9.98	1110	50.1	3000	49.0	824	10.0
TPH by SW8015 Mod	*Extracted:*	Mar-24-20 17:30		Mar-24-20 17:30		Mar-24-20 17:30		Mar-24-20 17:30		Mar-24-20 17:30		Mar-24-20 17:30	
	Analyzed:	Mar-25-20 04:32		Mar-25-20 02:31		Mar-25-20 04:53		Mar-25-20 05:13		Mar-25-20 04:12		Mar-25-20 02:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.3	50.3	<50.2	50.2	<49.9	49.9	<49.9	49.9	<49.9	49.9
Diesel Range Organics (DRO)		255	50.1	<50.3	50.3	284	50.2	354	49.9	166	49.9	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.3	50.3	<50.2	50.2	55.7	49.9	<49.9	49.9	<49.9	49.9
Total GRO-DRO		255	50.1	<50.3	50.3	284	50.2	354	49.9	166	49.9	<49.9	49.9
Total TPH		255	50.1	<50.3	50.3	284	50.2	410	49.9	166	49.9	<49.9	49.9

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analysis Summary 656558

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Mon Mar-23-20 03:40 pm
Report Date: 27-MAR-20
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	656558-013		656558-014		656558-015			
	Field Id:	FS02		FS03		FS04			
	Depth:	4- ft		4- ft		4- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Mar-23-20 12:21		Mar-23-20 12:27		Mar-23-20 12:30			
BTEX by EPA 8021B	***Extracted:***	Mar-23-20 18:00		Mar-23-20 18:00		Mar-23-20 18:00			
	Analyzed:	Mar-23-20 23:58		Mar-24-20 00:18		Mar-24-20 01:40			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402		
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
Xylenes, Total		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201		
Chloride by EPA 300	***Extracted:***	Mar-24-20 10:00		Mar-24-20 10:00		Mar-24-20 10:00			
	Analyzed:	Mar-24-20 13:44		Mar-24-20 13:50		Mar-24-20 13:56			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		307	9.96	1470	49.4	7710	50.2		
TPH by SW8015 Mod	***Extracted:***	Mar-24-20 17:30		Mar-24-20 17:30		Mar-24-20 17:30			
	Analyzed:	Mar-25-20 03:11		Mar-25-20 03:31		Mar-25-20 03:52			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.3	50.3	<50.2	50.2	<50.2	50.2		
Diesel Range Organics (DRO)		<50.3	50.3	<50.2	50.2	<50.2	50.2		
Motor Oil Range Hydrocarbons (MRO)		<50.3	50.3	<50.2	50.2	<50.2	50.2		
Total GRO-DRO		<50.3	50.3	<50.2	50.2	<50.2	50.2		
Total TPH		<50.3	50.3	<50.2	50.2	<50.2	50.2		

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-001	Date Collected:	03.23.20 09.41	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**572**	9.94	mg/kg	03.24.20 11.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.20	Basis:	Wet Weight
Seq Number:	3120791				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.24.20 23.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.2**	50.3	mg/kg	03.24.20 23.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.24.20 23.08	U	1
Total GRO-DRO	PHC628	**52.2**	50.3	mg/kg	03.24.20 23.08		1
Total TPH	PHC635	**52.2**	50.3	mg/kg	03.24.20 23.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.24.20 23.08	
o-Terphenyl	84-15-1	114	%	70-135	03.24.20 23.08	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-001	Date Collected:	03.23.20 09.41	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.24.20 04.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.24.20 04.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.24.20 04.47	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.24.20 04.47	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-002	Date Collected:	03.23.20 10.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	9.88	mg/kg	03.24.20 11.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.20	Basis:	Wet Weight
Seq Number:	3120791				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.24.20 23.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**248**	50.2	mg/kg	03.24.20 23.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.24.20 23.28	U	1
Total GRO-DRO	PHC628	**248**	50.2	mg/kg	03.24.20 23.28		1
Total TPH	PHC635	**248**	50.2	mg/kg	03.24.20 23.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.24.20 23.28	
o-Terphenyl	84-15-1	116	%	70-135	03.24.20 23.28	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS14**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-002	Date Collected:	03.23.20 10.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.24.20 05.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.24.20 05.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.24.20 05.08	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.24.20 05.08	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-003	Date Collected:	03.23.20 10.24	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**441**	10.1	mg/kg	03.24.20 12.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.20	Basis:	Wet Weight
Seq Number:	3120791				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.24.20 23.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**506**	50.3	mg/kg	03.24.20 23.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**74.9**	50.3	mg/kg	03.24.20 23.48		1
Total GRO-DRO	PHC628	**506**	50.3	mg/kg	03.24.20 23.48		1
Total TPH	PHC635	**581**	50.3	mg/kg	03.24.20 23.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	03.24.20 23.48	
o-Terphenyl	84-15-1	119	%	70-135	03.24.20 23.48	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS15**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-003	Date Collected:	03.23.20 10.24	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.24.20 05.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.24.20 05.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.24.20 05.28	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.24.20 05.28	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-004	Date Collected:	03.23.20 10.28	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**575**	10.1	mg/kg	03.24.20 12.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120925				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.25.20 10.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	**89.4**	50.2	mg/kg	03.25.20 10.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.25.20 10.10	U	1
Total GRO-DRO	PHC628	**89.4**	50.2	mg/kg	03.25.20 10.10		1
Total TPH	PHC635	**89.4**	50.2	mg/kg	03.25.20 10.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	03.25.20 10.10	
o-Terphenyl	84-15-1	119	%	70-135	03.25.20 10.10	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS16**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-004	Date Collected:	03.23.20 10.28	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120699				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.24.20 05.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.24.20 05.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	03.24.20 05.49	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.24.20 05.49	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-005	Date Collected:	03.23.20 10.32	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**299**	10.1	mg/kg	03.24.20 12.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 09.00	Basis:	Wet Weight
Seq Number:	3120790				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.24.20 23.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**307**	49.8	mg/kg	03.24.20 23.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.24.20 23.48	U	1
Total GRO-DRO	PHC628	**307**	49.8	mg/kg	03.24.20 23.48		1
Total TPH	PHC635	**307**	49.8	mg/kg	03.24.20 23.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	03.24.20 23.48	
o-Terphenyl	84-15-1	119	%	70-135	03.24.20 23.48	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS17**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-005	Date Collected:	03.23.20 10.32	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 21.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 21.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.23.20 21.15	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.23.20 21.15	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-006	Date Collected:	03.23.20 10.37	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**424**	9.94	mg/kg	03.24.20 12.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.25.20 02.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	**133**	49.8	mg/kg	03.25.20 02.10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.25.20 02.10	U	1
Total GRO-DRO	PHC628	**133**	49.8	mg/kg	03.25.20 02.10		1
Total TPH	PHC635	**133**	49.8	mg/kg	03.25.20 02.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	03.25.20 02.10	
o-Terphenyl	84-15-1	119	%	70-135	03.25.20 02.10	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS18**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-006	Date Collected:	03.23.20 10.37	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 21.35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 21.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.23.20 21.35	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.23.20 21.35	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-007	Date Collected:	03.23.20 10.42	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**312**	10.0	mg/kg	03.24.20 12.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.25.20 04.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	**255**	50.1	mg/kg	03.25.20 04.32		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.25.20 04.32	U	1
Total GRO-DRO	PHC628	**255**	50.1	mg/kg	03.25.20 04.32		1
Total TPH	PHC635	**255**	50.1	mg/kg	03.25.20 04.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	03.25.20 04.32	
o-Terphenyl	84-15-1	127	%	70-135	03.25.20 04.32	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS19**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-007	Date Collected:	03.23.20 10.42	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.23.20 21.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 21.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.23.20 21.55	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.23.20 21.55	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-008	Date Collected:	03.23.20 11.26	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1570**	49.9	mg/kg	03.24.20 12.48		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.25.20 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.25.20 02.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.25.20 02.31	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.25.20 02.31	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.25.20 02.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	03.25.20 02.31	
o-Terphenyl	84-15-1	117	%	70-135	03.25.20 02.31	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS20**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-008	Date Collected:	03.23.20 11.26	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 22.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 22.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.23.20 22.16	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.23.20 22.16	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-009	Date Collected:	03.23.20 11.29	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**525**	9.98	mg/kg	03.24.20 12.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.25.20 04.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**284**	50.2	mg/kg	03.25.20 04.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.25.20 04.53	U	1
Total GRO-DRO	PHC628	**284**	50.2	mg/kg	03.25.20 04.53		1
Total TPH	PHC635	**284**	50.2	mg/kg	03.25.20 04.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.25.20 04.53	
o-Terphenyl	84-15-1	122	%	70-135	03.25.20 04.53	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS21**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-009	Date Collected:	03.23.20 11.29	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.23.20 22.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.23.20 22.36	
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.23.20 22.36	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-010	Date Collected:	03.23.20 11.33	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1110**	50.1	mg/kg	03.24.20 13.01		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.25.20 05.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**354**	49.9	mg/kg	03.25.20 05.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**55.7**	49.9	mg/kg	03.25.20 05.13		1
Total GRO-DRO	PHC628	**354**	49.9	mg/kg	03.25.20 05.13		1
Total TPH	PHC635	**410**	49.9	mg/kg	03.25.20 05.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.25.20 05.13	
o-Terphenyl	84-15-1	115	%	70-135	03.25.20 05.13	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS22**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-010	Date Collected:	03.23.20 11.33	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 22.57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 22.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	03.23.20 22.57	
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.23.20 22.57	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-011	Date Collected:	03.23.20 11.36	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3000**	49.0	mg/kg	03.24.20 13.07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.25.20 04.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	**166**	49.9	mg/kg	03.25.20 04.12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.25.20 04.12	U	1
Total GRO-DRO	PHC628	**166**	49.9	mg/kg	03.25.20 04.12		1
Total TPH	PHC635	**166**	49.9	mg/kg	03.25.20 04.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	03.25.20 04.12	
o-Terphenyl	84-15-1	120	%	70-135	03.25.20 04.12	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS23**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-011	Date Collected:	03.23.20 11.36	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.23.20 23.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 23.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	03.23.20 23.17	
1,4-Difluorobenzene	540-36-3	118	%	70-130	03.23.20 23.17	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-012	Date Collected:	03.23.20 12.19	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**824**	10.0	mg/kg	03.24.20 13.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.25.20 02.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.25.20 02.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.25.20 02.51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.25.20 02.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.25.20 02.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.25.20 02.51	
o-Terphenyl	84-15-1	120	%	70-135	03.25.20 02.51	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-012	Date Collected:	03.23.20 12.19	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.23.20 23.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.23.20 23.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.23.20 23.37	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.23.20 23.37	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-013	Date Collected:	03.23.20 12.21	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**307**	9.96	mg/kg	03.24.20 13.44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.25.20 03.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	03.25.20 03.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.25.20 03.11	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	03.25.20 03.11	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	03.25.20 03.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	03.25.20 03.11	
o-Terphenyl	84-15-1	118	%	70-135	03.25.20 03.11	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-013	Date Collected:	03.23.20 12.21	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.23.20 23.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.23.20 23.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.23.20 23.58	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.23.20 23.58	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-014	Date Collected:	03.23.20 12.27	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1470**	49.4	mg/kg	03.24.20 13.50		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.25.20 03.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.25.20 03.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.25.20 03.31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.25.20 03.31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.25.20 03.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.25.20 03.31	
o-Terphenyl	84-15-1	118	%	70-135	03.25.20 03.31	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-014	Date Collected:	03.23.20 12.27	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.24.20 00.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.24.20 00.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	03.24.20 00.18	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.24.20 00.18	

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-015	Date Collected:	03.23.20 12.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 10.00	Basis:	Wet Weight
Seq Number:	3120845				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7710**	50.2	mg/kg	03.24.20 13.56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.25.20 03.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	03.25.20 03.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.25.20 03.52	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	03.25.20 03.52	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	03.25.20 03.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	03.25.20 03.52	
o-Terphenyl	84-15-1	138	%	70-135	03.25.20 03.52	**

Certificate of Analytical Results 656558

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	03.23.20 15.40
Lab Sample Id:	656558-015	Date Collected:	03.23.20 12.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.23.20 18.00	Basis:	Wet Weight
Seq Number:	3120724				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.24.20 01.40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1
Xylenes, Total	1330-20-7	<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.24.20 01.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.24.20 01.40	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.24.20 01.40	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120845 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699604-1-BLK — LCS Sample Id: 7699604-1-BKS — LCSD Sample Id: 7699604-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	262	105	90-110	0	20	mg/kg	03.24.20 11:10	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120845 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656558-001 — MS Sample Id: 656558-001 S — MSD Sample Id: 656558-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	572	200	778	103	773	101	90-110	1	20	mg/kg	03.24.20 11:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120845 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656558-011 — MS Sample Id: 656558-011 S

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Chloride	3000	200	3200	100	90-110	mg/kg	03.24.20 13:13	
Chloride	3000	200	3210	105	90-110	mg/kg	03.24.20 13:31	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120790 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699643-1-BLK — LCS Sample Id: 7699643-1-BKS — LCSD Sample Id: 7699643-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	1030	103	70-135	4	35	mg/kg	03.24.20 13:44	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1090	109	70-135	4	35	mg/kg	03.24.20 13:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		125		120		70-135	%	03.24.20 13:44
o-Terphenyl	104		126		121		70-135	%	03.24.20 13:44

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

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120791 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699645-1-BLK — LCS Sample Id: 7699645-1-BKS — LCSD Sample Id: 7699645-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1010	101	1050	105	70-135	4	35	mg/kg	03.24.20 13:44	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1140	114	70-135	4	35	mg/kg	03.24.20 13:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		124		128		70-135	%	03.24.20 13:44
o-Terphenyl	105		121		127		70-135	%	03.24.20 13:44

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK — LCS Sample Id: 7699702-1-BKS — LCSD Sample Id: 7699702-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	984	98	992	99	70-135	1	35	mg/kg	03.25.20 09:25	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1090	109	70-135	0	35	mg/kg	03.25.20 09:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		123		123		70-135	%	03.25.20 09:25
o-Terphenyl	112		121		122		70-135	%	03.25.20 09:25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120925 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699704-1-BLK — LCS Sample Id: 7699704-1-BKS — LCSD Sample Id: 7699704-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	1040	104	70-135	2	35	mg/kg	03.25.20 09:25	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1120	112	70-135	1	35	mg/kg	03.25.20 09:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		126		128		70-135	%	03.25.20 09:25
o-Terphenyl	89		122		123		70-135	%	03.25.20 09:25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120790 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699643-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.24.20 13:24	

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

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120791 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699645-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.24.20 13:24	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.25.20 14:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120925 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699704-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.25.20 14:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120790 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656458-121 — MS Sample Id: 656458-121 S — MSD Sample Id: 656458-121 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1020	102	935	93	70-135	9	35	mg/kg	03.24.20 15:24	
Diesel Range Organics (DRO)	<50.1	1000	1170	117	1030	102	70-135	13	35	mg/kg	03.24.20 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		115		70-135	%	03.24.20 15:24
o-Terphenyl	127		112		70-135	%	03.24.20 15:24

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

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120791 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656458-132 | MS Sample Id: 656458-132 S | MSD Sample Id: 656458-132 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	965	97	904	90	70-135	7	35	mg/kg	03.24.20 15:24	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1030	103	70-135	9	35	mg/kg	03.24.20 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		116		70-135	%	03.24.20 15:24
o-Terphenyl	121		111		70-135	%	03.24.20 15:24

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120922 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656666-001 | MS Sample Id: 656666-001 S | MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1010	101	912	91	70-135	10	35	mg/kg	03.25.20 10:50	
Diesel Range Organics (DRO)	<50.1	1000	1150	115	1030	103	70-135	11	35	mg/kg	03.25.20 10:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		119		70-135	%	03.25.20 10:50
o-Terphenyl	128		121		70-135	%	03.25.20 10:50

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120925 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656558-004 | MS Sample Id: 656558-004 S | MSD Sample Id: 656558-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	851	85	781	78	70-135	9	35	mg/kg	03.25.20 10:50	
Diesel Range Organics (DRO)	89.4	1000	960	87	856	77	70-135	11	35	mg/kg	03.25.20 10:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		97		70-135	%	03.25.20 10:50
o-Terphenyl	100		89		70-135	%	03.25.20 10:50

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

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

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

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

Final 1.000

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3120699 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699587-1-BLK — LCS Sample Id: 7699587-1-BKS — LCSD Sample Id: 7699587-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.105	105	70-130	2	35	mg/kg	03.23.20 20:58	
Toluene	<0.00200	0.100	0.102	102	0.100	100	70-130	2	35	mg/kg	03.23.20 20:58	
Ethylbenzene	<0.00200	0.100	0.0981	98	0.0952	95	71-129	3	35	mg/kg	03.23.20 20:58	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.196	98	70-135	3	35	mg/kg	03.23.20 20:58	
o-Xylene	<0.00200	0.100	0.102	102	0.0988	99	71-133	3	35	mg/kg	03.23.20 20:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		108		70-130	%	03.23.20 20:58
4-Bromofluorobenzene	95		94		92		70-130	%	03.23.20 20:58

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3120724 — Matrix: Solid — Date Prep: 03.23.20
MB Sample Id: 7699590-1-BLK — LCS Sample Id: 7699590-1-BKS — LCSD Sample Id: 7699590-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.125	125	0.126	126	70-130	1	35	mg/kg	03.23.20 19:12	
Toluene	<0.00200	0.100	0.114	114	0.116	116	70-130	2	35	mg/kg	03.23.20 19:12	
Ethylbenzene	<0.00200	0.100	0.106	106	0.108	108	71-129	2	35	mg/kg	03.23.20 19:12	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.211	106	70-135	1	35	mg/kg	03.23.20 19:12	
o-Xylene	<0.00200	0.100	0.106	106	0.107	107	71-133	1	35	mg/kg	03.23.20 19:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		110		110		70-130	%	03.23.20 19:12
4-Bromofluorobenzene	93		87		88		70-130	%	03.23.20 19:12

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3120699 — Matrix: Soil — Date Prep: 03.23.20
Parent Sample Id: 656545-003 — MS Sample Id: 656545-003 S — MSD Sample Id: 656545-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0874	87	0.109	109	70-130	22	35	mg/kg	03.23.20 21:39	
Toluene	<0.00200	0.100	0.0839	84	0.102	102	70-130	19	35	mg/kg	03.23.20 21:39	
Ethylbenzene	<0.00200	0.100	0.0795	80	0.0950	95	71-129	18	35	mg/kg	03.23.20 21:39	
m,p-Xylenes	<0.00401	0.200	0.163	82	0.194	97	70-135	17	35	mg/kg	03.23.20 21:39	
o-Xylene	<0.00200	0.100	0.0815	82	0.0986	99	71-133	19	35	mg/kg	03.23.20 21:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	03.23.20 21:39
4-Bromofluorobenzene	97		90		70-130	%	03.23.20 21:39

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

QC Summary 656558

LT Environmental, Inc.

RDX 17-14

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

Seq Number: 3120724 Matrix: Soil Date Prep: 03.23.20

Parent Sample Id: 656558-005 MS Sample Id: 656558-005 S MSD Sample Id: 656558-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.118	119	0.114	114	70-130	3	35	mg/kg	03.23.20 19:53	
Toluene	<0.00198	0.0992	0.106	107	0.101	101	70-130	5	35	mg/kg	03.23.20 19:53	
Ethylbenzene	<0.00198	0.0992	0.0964	97	0.0894	89	71-129	8	35	mg/kg	03.23.20 19:53	
m,p-Xylenes	<0.00397	0.198	0.185	93	0.172	86	70-135	7	35	mg/kg	03.23.20 19:53	
o-Xylene	<0.00198	0.0992	0.0938	95	0.0899	90	71-133	4	35	mg/kg	03.23.20 19:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		70-130	%	03.23.20 19:53
4-Bromofluorobenzene	84		88		70-130	%	03.23.20 19:53

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 656558

www.xenco.com Page 1 of 2

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	RDX 17-14	Turn Around	
Project Number:	034820011	Routine	✓
P.O. Number:	2RLP-2813	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.6	Thermometer ID		
Received Intact:	(Yes) No		NM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.7	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	15	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS10	s	3/23/20	0941	4'	1	X	X	X
FS14	s	3/23/20	1020					
FS15	s		1024					
FS16	s		1028					
FS17	s		1032					
FS18	s		1037					
FS19	s		1042					
FS20	s		1126					
FS21	s		1129					
FS22	s		1133					

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Compost

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/23/20 15:40	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 1056558

XENCO LABORATORIES

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

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985 Email:	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	ROX 17-14	Turn Around	
Project Number:	03482001	Routine	✓
P.O. Number:	2RP-2813	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03	s	3/23/00	1136	4'	1	X	X	X
FS01	s		1219					
FS02	s		1221					
FS03	s		1227					
FS04	s		1230					
	s							
	s							
	s							
	s							
	s							

Work Order Notes

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

Sample Comments

Composite

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/23/20 15:40	2		
			4		
			6		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.23.2020 03.40.00 PM

Work Order #: 656558

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.23.2020

Checklist reviewed by: Jessica Kramer Date: 03.24.2020

Jessica Kramer

Analytical Report 656687

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

25-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

25-MAR-20

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

Reference: XENCO Report No(s): **656687**
RDX 17-14
Project Address:

Chris McKisson:

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) 656687. 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. 656687 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 Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 656687

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	03-24-20 11:00	0 - 4 ft	656687-001
FS25 (Hold)	S	03-24-20 12:04	4 ft	Not Analyzed

Version: 1.%

Final 1.000

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *656687*

Report Date: *25-MAR-20*
Date Received: *03/24/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120853 BTEX by EPA 8021B

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

Certificate of Analysis Summary 656687

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Tue Mar-24-20 02:25 pm
Report Date: 25-MAR-20
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	656687-001					
	Field Id:	SW01					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	Mar-24-20 11:00					
BTEX by EPA 8021B	***Extracted:***	Mar-24-20 14:37					
	Analyzed:	Mar-24-20 22:16					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Xylenes, Total		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	Mar-24-20 14:51					
	Analyzed:	Mar-24-20 17:43					
	Units/RL:	mg/kg	RL				
Chloride		648	49.9				
TPH by SW8015 Mod	***Extracted:***	Mar-24-20 17:30					
	Analyzed:	Mar-25-20 11:51					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9				
Diesel Range Organics (DRO)		<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9				
Total GRO-DRO		<49.9	49.9				
Total TPH		<49.9	49.9				

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analytical Results 656687

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	03.24.20 14.25
Lab Sample Id:	656687-001	Date Collected:	03.24.20 11.00	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.51	Basis:	Wet Weight
Seq Number:	3120867				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**648**	49.9	mg/kg	03.24.20 17.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.24.20 17.30	Basis:	Wet Weight
Seq Number:	3120922				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.25.20 11.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.25.20 11.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.25.20 11.51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.25.20 11.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.25.20 11.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	03.25.20 11.51	
o-Terphenyl	84-15-1	113	%	70-135	03.25.20 11.51	

Certificate of Analytical Results 656687

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	03.24.20 14.25
Lab Sample Id:	656687-001	Date Collected:	03.24.20 11.00	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.24.20 14.37	Basis:	Wet Weight
Seq Number:	3120853				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.24.20 22.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.24.20 22.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.24.20 22.16	
4-Bromofluorobenzene	460-00-4	97	%	70-130	03.24.20 22.16	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 656687

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699626-1-BLK — LCS Sample Id: 7699626-1-BKS — LCSD Sample Id: 7699626-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	263	105	90-110	3	20	mg/kg	03.24.20 15:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656666-001 — MS Sample Id: 656666-001 S — MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	688	200	892	102	876	96	90-110	2	20	mg/kg	03.24.20 15:55	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120867 — Matrix: Soil — Date Prep: 03.24.20
Parent Sample Id: 656670-008 — MS Sample Id: 656670-008 S — MSD Sample Id: 656670-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2150	201	2350	100	2350	100	90-110	0	20	mg/kg	03.24.20 17:14	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK — LCS Sample Id: 7699702-1-BKS — LCSD Sample Id: 7699702-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	984	98	992	99	70-135	1	35	mg/kg	03.25.20 09:25	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1090	109	70-135	0	35	mg/kg	03.25.20 09:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		123		123		70-135	%	03.25.20 09:25
o-Terphenyl	112		121		122		70-135	%	03.25.20 09:25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120922 — Matrix: Solid — Date Prep: 03.24.20
MB Sample Id: 7699702-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.25.20 14:56	

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

Final 1.000

QC Summary 656687

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3120922 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656666-001 | MS Sample Id: 656666-001 S | MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1010	101	912	91	70-135	10	35	mg/kg	03.25.20 10:50	
Diesel Range Organics (DRO)	<50.1	1000	1150	115	1030	103	70-135	11	35	mg/kg	03.25.20 10:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		119		70-135	%	03.25.20 10:50
o-Terphenyl	128		121		70-135	%	03.25.20 10:50

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120853 | Matrix: Solid | Date Prep: 03.24.20
MB Sample Id: 7699625-1-BLK | LCS Sample Id: 7699625-1-BKS | LCSD Sample Id: 7699625-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.114	114	70-130	1	35	mg/kg	03.24.20 15:48	
Toluene	<0.00200	0.100	0.108	108	0.110	110	70-130	2	35	mg/kg	03.24.20 15:48	
Ethylbenzene	<0.00200	0.100	0.102	102	0.104	104	71-129	2	35	mg/kg	03.24.20 15:48	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.215	108	70-135	2	35	mg/kg	03.24.20 15:48	
o-Xylene	<0.00200	0.100	0.105	105	0.108	108	71-133	3	35	mg/kg	03.24.20 15:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		108		108		70-130	%	03.24.20 15:48
4-Bromofluorobenzene	95		88		91		70-130	%	03.24.20 15:48

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3120853 | Matrix: Soil | Date Prep: 03.24.20
Parent Sample Id: 656666-001 | MS Sample Id: 656666-001 S | MSD Sample Id: 656666-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.112	112	0.118	118	70-130	5	35	mg/kg	03.24.20 16:29	
Toluene	<0.00199	0.0996	0.107	107	0.114	114	70-130	6	35	mg/kg	03.24.20 16:29	
Ethylbenzene	<0.00199	0.0996	0.101	101	0.108	108	71-129	7	35	mg/kg	03.24.20 16:29	
m,p-Xylenes	<0.00398	0.199	0.208	105	0.223	112	70-135	7	35	mg/kg	03.24.20 16:29	
o-Xylene	<0.00199	0.0996	0.104	104	0.111	111	71-133	7	35	mg/kg	03.24.20 16:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	03.24.20 16:29
4-Bromofluorobenzene	94		93		70-130	%	03.24.20 16:29

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

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

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

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

Final 1.000

Chain of Custody

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

Work Order No: 1056687

Page 1 of 1

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985 Email:	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	RDX 17-14	Turn Around	
Project Number:	034820011	Routine	☐
P.O. Number:	2RP-3813	Rush:	24hr
Sampler's Name:	Jeremy Hill	Due Date:	3/25/20

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.5	Thermometer ID		
Received Intact:	(Yes) No		TNM007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Work Order Notes / Sample Comments
SW01	S	11/5 3-24-20		0-4'	1	X	X	X	Composit
FS25 (Hold)	S	1204 3-24-20		4'	1	X	X	X	Composit (Hold, pending results of SW01, then run as routine if asked to take off hold)
	S								
	S								
	S								
	S								
	S								
	S								
	S								
	S								

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

ANALYSIS REQUEST

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/24/20 14:25	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.24.2020 02.25.00 PM

Work Order #: 656687

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.24.2020

Checklist reviewed by: Jessica Kramer Date: 03.25.2020

Jessica Kramer

Analytical Report 657037

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

27-MAR-20

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

27-MAR-20

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

Reference: XENCO Report No(s): **657037**
RDX 17-14
Project Address:

Chris McKisson:

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) 657037. 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. 657037 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 Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 657037

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS07A	S	03-26-20 10:44	0.5 - 2.0 ft	657037-001

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *657037*

Report Date: *27-MAR-20*
Date Received: *03/26/2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121157 BTEX by EPA 8021B

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

Certificate of Analysis Summary 657037

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Thu Mar-26-20 03:30 pm
Report Date: 27-MAR-20
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	657037-001					
	Field Id:	FS07A					
	Depth:	0.5-2.0 ft					
	Matrix:	SOIL					
	Sampled:	Mar-26-20 10:44					
BTEX by EPA 8021B	***Extracted:***	Mar-26-20 18:00					
	Analyzed:	Mar-27-20 05:43					
	Units/RL:	mg/kg	RL				
Benzene		<0.00199	0.00199				
Toluene		<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398				
o-Xylene		<0.00199	0.00199				
Xylenes, Total		<0.00199	0.00199				
Total BTEX		<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	Mar-26-20 20:09					
	Analyzed:	** ** ** **					
	Units/RL:	mg/kg	RL				
Chloride		273	10.0				
TPH by SW8015 Mod	***Extracted:***	Mar-26-20 16:00					
	Analyzed:	Mar-27-20 08:59					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2				
Diesel Range Organics (DRO)		267	50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2				
Total GRO-DRO		267	50.2				
Total TPH		267	50.2				

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

Version: 1.%

Jessica Kramer
Project Manager

Final 1.000

Certificate of Analytical Results 657037

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS07A**	Matrix:	Soil	Date Received:	03.26.20 15.30
Lab Sample Id:	657037-001	Date Collected:	03.26.20 10.44	Sample Depth:	0.5 - 2.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.20 20.09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**273**	10.0	mg/kg	03.26.20 18.50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.26.20 16.00	Basis:	Wet Weight
Seq Number:	3121138				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	03.27.20 08.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**267**	50.2	mg/kg	03.27.20 08.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	03.27.20 08.59	U	1
Total GRO-DRO	PHC628	**267**	50.2	mg/kg	03.27.20 08.59		1
Total TPH	PHC635	**267**	50.2	mg/kg	03.27.20 08.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	03.27.20 08.59	
o-Terphenyl	84-15-1	120	%	70-135	03.27.20 08.59	

Certificate of Analytical Results 657037

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS07A**	Matrix:	Soil	Date Received:	03.26.20 15.30
Lab Sample Id:	657037-001	Date Collected:	03.26.20 10.44	Sample Depth:	0.5 - 2.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.20 18.00	Basis:	Wet Weight
Seq Number:	3121157				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.27.20 05.43	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.27.20 05.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.27.20 05.43	
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.27.20 05.43	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 657037

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121152 — Matrix: Solid — Date Prep: 03.26.20
MB Sample Id: 7699897-1-BLK — LCS Sample Id: 7699897-1-BKS — LCSD Sample Id: 7699897-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	266	106	90-110	0	20	mg/kg	03.27.20 09:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121152 — Matrix: Soil — Date Prep: 03.26.20
Parent Sample Id: 657044-004 — MS Sample Id: 657044-004 S — MSD Sample Id: 657044-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	146	200	327	91	337	96	90-110	3	20	mg/kg	03.27.20 10:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121138 — Matrix: Solid — Date Prep: 03.26.20
MB Sample Id: 7699848-1-BLK — LCS Sample Id: 7699848-1-BKS — LCSD Sample Id: 7699848-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	956	96	951	95	70-135	1	35	mg/kg	03.27.20 00:51	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1110	111	70-135	2	35	mg/kg	03.27.20 00:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		121		124		70-135	%	03.27.20 00:51
o-Terphenyl	118		129		127		70-135	%	03.27.20 00:51

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121138 — Matrix: Solid — Date Prep: 03.26.20
MB Sample Id: 7699848-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.27.20 00:31	

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

Final 1.000

QC Summary 657037

LT Environmental, Inc.

RDX 17-14

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3121138 | Matrix: Soil | Date Prep: 03.26.20
Parent Sample Id: 656942-014 | MS Sample Id: 656942-014 S | MSD Sample Id: 656942-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	998	100	984	98	70-135	1	35	mg/kg	03.27.20 01:52	
Diesel Range Organics (DRO)	<49.9	998	1170	117	1150	115	70-135	2	35	mg/kg	03.27.20 01:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		129		70-135	%	03.27.20 01:52
o-Terphenyl	132		131		70-135	%	03.27.20 01:52

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3121157 | Matrix: Solid | Date Prep: 03.26.20
MB Sample Id: 7699887-1-BLK | LCS Sample Id: 7699887-1-BKS | LCSD Sample Id: 7699887-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	03.26.20 21:13	
Toluene	<0.00200	0.100	0.102	102	0.101	101	70-130	1	35	mg/kg	03.26.20 21:13	
Ethylbenzene	<0.00200	0.100	0.0957	96	0.0945	95	71-129	1	35	mg/kg	03.26.20 21:13	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.194	97	70-135	2	35	mg/kg	03.26.20 21:13	
o-Xylene	<0.00200	0.100	0.100	100	0.0994	99	71-133	1	35	mg/kg	03.26.20 21:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		109		109		70-130	%	03.26.20 21:13
4-Bromofluorobenzene	95		91		94		70-130	%	03.26.20 21:13

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3121157 | Matrix: Soil | Date Prep: 03.26.20
Parent Sample Id: 656968-007 | MS Sample Id: 656968-007 S | MSD Sample Id: 656968-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.108	107	0.110	111	70-130	2	35	mg/kg	03.26.20 21:54	
Toluene	<0.00202	0.101	0.102	101	0.104	105	70-130	2	35	mg/kg	03.26.20 21:54	
Ethylbenzene	<0.00202	0.101	0.0962	95	0.0972	98	71-129	1	35	mg/kg	03.26.20 21:54	
m,p-Xylenes	<0.00404	0.202	0.197	98	0.201	102	70-135	2	35	mg/kg	03.26.20 21:54	
o-Xylene	<0.00202	0.101	0.0988	98	0.102	103	71-133	3	35	mg/kg	03.26.20 21:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	03.26.20 21:54
4-Bromofluorobenzene	94		92		70-130	%	03.26.20 21:54

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

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

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

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

Final 1.000

Chain of Custody

Work Order No: 457037

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 1

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985 Email:	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	ROY 17-14	Turn Around	
Project Number:	03482 0011	Routine ☐	
P.O. Number:	2RP-2813	Rush: 24hr	
Sampler's Name:	Jeremy Hill	Due Date: 3/27/20	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS07A	s	3/26/20	1044	0.5-2.0'	1	X	X	X
	s							
	s							
	s							
	s							
	s							
	s							
	s							
	s							
	s							

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/20/20 15:30	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.26.2020 03.30.00 PM

Work Order #: 657037

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.26.2020

Checklist reviewed by: Jessica Kramer Date: 03.27.2020

Jessica Kramer

Analytical Report 657041

for

LT Environmental, Inc.

Project Manager: Chris McKisson

RDX 17-14

034820011

04.22.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.22.2020

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

Reference: XENCO Report No(s): **657041**
RDX 17-14
Project Address:

Chris McKisson:

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) 657041. 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. 657041 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 Manager

A Small Business and Minority Company

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

Sample Cross Reference 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW06	S	03.26.2020 09:28	0 - 4 ft	657041-001
SW03	S	03.26.2020 09:32	0 - 4 ft	657041-002
FS25	S	03.26.2020 09:36	4 ft	657041-003
FS24	S	03.26.2020 09:39	4 ft	657041-004
FS11A	S	03.26.2020 10:40	4 ft	657041-005
SW07	S	03.26.2020 12:27	0 - 4.0 ft	657041-006
FS05A	S	03.26.2020 13:23	4 ft	657041-007

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: RDX 17-14

Project ID: *034820011*
Work Order Number(s): *657041*

Report Date: *04.22.2020*
Date Received: *03.26.2020*

Sample receipt non conformances and comments:

V1.001 Revision (client email) Corrected sample 003 name from FS25A to FS25 JK 04/22/20

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3121285 BTEX by EPA 8021B

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

Certificate of Analysis Summary 657041

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Thu 03.26.2020 15:30
Report Date: 04.22.2020 09:45
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	657041-001		657041-002		657041-003		657041-004		657041-005		657041-006	
	Field Id:	SW06		SW03		FS25		FS24		FS11A		SW07	
	Depth:	0-4 ft		0-4 ft		4- ft		4- ft		4- ft		0-4.0 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.26.2020 09:28		03.26.2020 09:32		03.26.2020 09:36		03.26.2020 09:39		03.26.2020 10:40		03.26.2020 12:27	
BTEX by EPA 8021B	***Extracted:***	03.27.2020 11:00		03.27.2020 11:00		03.27.2020 11:00		03.27.2020 11:00		03.27.2020 11:00		03.27.2020 11:00	
	Analyzed:	03.27.2020 16:13		03.27.2020 12:45		03.27.2020 17:55		03.27.2020 18:16		03.27.2020 18:36		03.27.2020 18:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00400	0.00400	<0.00396	0.00396	<0.00397	0.00397	<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Xylenes, Total		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	03.26.2020 20:09		03.26.2020 20:09		03.26.2020 20:09		03.26.2020 20:09		03.26.2020 20:09		03.26.2020 20:09	
	Analyzed:	03.27.2020 10:22		03.27.2020 10:28		03.27.2020 10:33		03.27.2020 10:39		03.27.2020 10:56		03.27.2020 11:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		193	10.1	317	10.0	2940	49.4	2050	49.6	388	10.0	439	50.4
TPH by SW8015 Mod	***Extracted:***	03.27.2020 17:30		03.27.2020 17:30		03.27.2020 17:30		03.27.2020 17:30		03.27.2020 17:30		03.27.2020 17:30	
	Analyzed:	03.28.2020 02:26		03.28.2020 02:46		03.28.2020 03:07		03.28.2020 03:27		03.28.2020 03:47		03.28.2020 04:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	<50.1	50.1
Diesel Range Organics (DRO)		<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	90.7	50.3	<50.1	50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	<50.3	50.3	<50.1	50.1
Total GRO-DRO		<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	90.7	50.3	<50.1	50.1
Total TPH		<49.9	49.9	<50.1	50.1	<50.0	50.0	<50.1	50.1	90.7	50.3	<50.1	50.1

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 657041

LT Environmental, Inc., Arvada, CO

Project Name: RDX 17-14

Project Id: 034820011
Contact: Chris McKisson
Project Location:

Date Received in Lab: Thu 03.26.2020 15:30
Report Date: 04.22.2020 09:45
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	657041-007						
	Field Id:	FS05A						
	Depth:	4- ft						
	Matrix:	SOIL						
	Sampled:	03.26.2020 13:23						
BTEX by EPA 8021B	***Extracted:***	03.27.2020 11:00						
	Analyzed:	03.27.2020 19:17						
	Units/RL:	mg/kg	RL					
Benzene		<0.00202	0.00202					
Toluene		<0.00202	0.00202					
Ethylbenzene		<0.00202	0.00202					
m,p-Xylenes		<0.00403	0.00403					
o-Xylene		<0.00202	0.00202					
Xylenes, Total		<0.00202	0.00202					
Total BTEX		<0.00202	0.00202					
Chloride by EPA 300	***Extracted:***	03.26.2020 20:09						
	Analyzed:	03.27.2020 11:08						
	Units/RL:	mg/kg	RL					
Chloride		974	49.5					
TPH by SW8015 Mod	***Extracted:***	03.27.2020 17:30						
	Analyzed:	03.28.2020 04:48						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8					
Diesel Range Organics (DRO)		<49.8	49.8					
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8					
Total GRO-DRO		<49.8	49.8					
Total TPH		<49.8	49.8					

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

Jessica Kramer
Project Manager

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-001	Date Collected:	03.26.2020 09:28	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**193**	10.1	mg/kg	03.27.2020 10:22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.28.2020 02:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.28.2020 02:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.28.2020 02:26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	03.28.2020 02:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.28.2020 02:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.28.2020 02:26	
o-Terphenyl	84-15-1	127	%	70-135	03.28.2020 02:26	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-001	Date Collected:	03.26.2020 09:28	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.27.2020 16:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1
Xylenes, Total	1330-20-7	<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.27.2020 16:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.27.2020 16:13	
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.27.2020 16:13	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-002	Date Collected:	03.26.2020 09:32	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**317**	10.0	mg/kg	03.27.2020 10:28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.28.2020 02:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.28.2020 02:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.28.2020 02:46	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.28.2020 02:46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.28.2020 02:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	03.28.2020 02:46	
o-Terphenyl	84-15-1	126	%	70-135	03.28.2020 02:46	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-002	Date Collected:	03.26.2020 09:32	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.27.2020 12:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.27.2020 12:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.27.2020 12:45	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.27.2020 12:45	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-003	Date Collected:	03.26.2020 09:36	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2940**	49.4	mg/kg	03.27.2020 10:33		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.28.2020 03:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.28.2020 03:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.28.2020 03:07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	03.28.2020 03:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.28.2020 03:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.28.2020 03:07	
o-Terphenyl	84-15-1	122	%	70-135	03.28.2020 03:07	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS25**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-003	Date Collected:	03.26.2020 09:36	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.27.2020 17:55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1
Xylenes, Total	1330-20-7	<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.27.2020 17:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	03.27.2020 17:55	
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.27.2020 17:55	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-004	Date Collected:	03.26.2020 09:39	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2050**	49.6	mg/kg	03.27.2020 10:39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.28.2020 03:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.28.2020 03:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.28.2020 03:27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.28.2020 03:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.28.2020 03:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.28.2020 03:27	
o-Terphenyl	84-15-1	121	%	70-135	03.28.2020 03:27	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS24**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-004	Date Collected:	03.26.2020 09:39	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.27.2020 18:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.27.2020 18:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.27.2020 18:16	
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.27.2020 18:16	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS11A**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-005	Date Collected:	03.26.2020 10:40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**388**	10.0	mg/kg	03.27.2020 10:56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	03.28.2020 03:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**90.7**	50.3	mg/kg	03.28.2020 03:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	03.28.2020 03:47	U	1
Total GRO-DRO	PHC628	**90.7**	50.3	mg/kg	03.28.2020 03:47		1
Total TPH	PHC635	**90.7**	50.3	mg/kg	03.28.2020 03:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	03.28.2020 03:47	
o-Terphenyl	84-15-1	125	%	70-135	03.28.2020 03:47	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS11A**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-005	Date Collected:	03.26.2020 10:40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.27.2020 18:36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.27.2020 18:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.27.2020 18:36	
4-Bromofluorobenzene	460-00-4	90	%	70-130	03.27.2020 18:36	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-006	Date Collected:	03.26.2020 12:27	Sample Depth:	0 - 4.0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**439**	50.4	mg/kg	03.27.2020 11:02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.28.2020 04:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.28.2020 04:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.28.2020 04:28	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.28.2020 04:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.28.2020 04:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	03.28.2020 04:28	
o-Terphenyl	84-15-1	121	%	70-135	03.28.2020 04:28	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-006	Date Collected:	03.26.2020 12:27	Sample Depth:	0 - 4.0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.27.2020 18:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1
Xylenes, Total	1330-20-7	<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.27.2020 18:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	03.27.2020 18:57	
1,4-Difluorobenzene	540-36-3	115	%	70-130	03.27.2020 18:57	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS05A**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-007	Date Collected:	03.26.2020 13:23	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.26.2020 20:09	Basis:	Wet Weight
Seq Number:	3121152				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**974**	49.5	mg/kg	03.27.2020 11:08		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	03.27.2020 17:30	Basis:	Wet Weight
Seq Number:	3121273				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.28.2020 04:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.28.2020 04:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.28.2020 04:48	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.28.2020 04:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.28.2020 04:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	03.28.2020 04:48	
o-Terphenyl	84-15-1	121	%	70-135	03.28.2020 04:48	

Certificate of Analytical Results 657041

LT Environmental, Inc., Arvada, CO

RDX 17-14

Sample Id:	**FS05A**	Matrix:	Soil	Date Received:	03.26.2020 15:30
Lab Sample Id:	657041-007	Date Collected:	03.26.2020 13:23	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	03.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3121285				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.27.2020 19:17	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1
Xylenes, Total	1330-20-7	<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.27.2020 19:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	03.27.2020 19:17	
4-Bromofluorobenzene	460-00-4	96	%	70-130	03.27.2020 19:17	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 657041

LT Environmental, Inc.

RDX 17-14

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121152 — Matrix: Solid — Date Prep: 03.26.2020
MB Sample Id: 7699897-1-BLK — LCS Sample Id: 7699897-1-BKS — LCSD Sample Id: 7699897-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	266	106	90-110	0	20	mg/kg	03.27.2020 09:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3121152 — Matrix: Soil — Date Prep: 03.26.2020
Parent Sample Id: 657044-004 — MS Sample Id: 657044-004 S — MSD Sample Id: 657044-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	146	200	327	91	337	96	90-110	3	20	mg/kg	03.27.2020 10:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121273 — Matrix: Solid — Date Prep: 03.27.2020
MB Sample Id: 7699944-1-BLK — LCS Sample Id: 7699944-1-BKS — LCSD Sample Id: 7699944-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1020	102	961	96	70-135	6	35	mg/kg	03.27.2020 23:22	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1120	112	70-135	7	35	mg/kg	03.27.2020 23:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		130		122		70-135	%	03.27.2020 23:22
o-Terphenyl	113		131		124		70-135	%	03.27.2020 23:22

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121273 — Matrix: Solid — Date Prep: 03.27.2020
MB Sample Id: 7699944-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.27.2020 23:02	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3121273 — Matrix: Soil — Date Prep: 03.27.2020
Parent Sample Id: 656968-023 — MS Sample Id: 656968-023 S — MSD Sample Id: 656968-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1040	103	990	99	70-135	5	35	mg/kg	03.28.2020 00:23	
Diesel Range Organics (DRO)	<50.3	1010	1100	109	1020	102	70-135	8	35	mg/kg	03.28.2020 00:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		128		70-135	%	03.28.2020 00:23
o-Terphenyl	118		132		70-135	%	03.28.2020 00:23

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

QC Summary 657041

LT Environmental, Inc.

RDX 17-14

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

Seq Number: 3121285 Matrix: Solid Date Prep: 03.27.2020

MB Sample Id: 7699890-1-BLK LCS Sample Id: 7699890-1-BKS LCSD Sample Id: 7699890-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.121	121	70-130	11	35	mg/kg	03.27.2020 11:49	
Toluene	<0.00200	0.100	0.0985	99	0.125	125	70-130	24	35	mg/kg	03.27.2020 11:49	
Ethylbenzene	<0.00200	0.100	0.0923	92	0.117	117	71-129	24	35	mg/kg	03.27.2020 11:49	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.227	114	70-135	23	35	mg/kg	03.27.2020 11:49	
o-Xylene	<0.00200	0.100	0.0903	90	0.115	115	71-133	24	35	mg/kg	03.27.2020 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		109		110		70-130	%	03.27.2020 11:49
4-Bromofluorobenzene	92		85		87		70-130	%	03.27.2020 11:49

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

Seq Number: 3121285 Matrix: Soil Date Prep: 03.27.2020

Parent Sample Id: 656968-018 MS Sample Id: 656968-018 S MSD Sample Id: 656968-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.122	121	0.124	123	70-130	2	35	mg/kg	03.27.2020 12:29	
Toluene	<0.00202	0.101	0.111	110	0.111	110	70-130	0	35	mg/kg	03.27.2020 12:29	
Ethylbenzene	<0.00202	0.101	0.104	103	0.102	101	71-129	2	35	mg/kg	03.27.2020 12:29	
m,p-Xylenes	<0.00404	0.202	0.202	100	0.196	97	70-135	3	35	mg/kg	03.27.2020 12:29	
o-Xylene	<0.00202	0.101	0.0998	99	0.102	101	71-133	2	35	mg/kg	03.27.2020 12:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		110		70-130	%	03.27.2020 12:29
4-Bromofluorobenzene	86		87		70-130	%	03.27.2020 12:29

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

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

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 605704 1

www.xenco.com Page 1 of 1

Project Manager:	Chris Mckisson	Bill to: (if different)	Chris Mckisson
Company Name:	LT Environmental, Inc.,	Company Name:	LT Environmental
Address:	820 Megan Ave, Unit B	Address:	820 Megan Ave, Unit B
City, State ZIP:	Rifle, CO 81650	City, State ZIP:	Rifle, CO 81650
Phone:	970-285-9985	Email:	Jhill@ltenv.com, cmckisson@ltenv.com

Work Order Comments

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

Project Name:	RDX 17-14	Turn Around	
Project Number:	03482 0011	Routine	☑
P.O. Number:	3RP-3813	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.6	Thermometer ID	
Received Intact:	Yes No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW06	S	3/16/20	0928	0-4'	1	X	X	X
SW03	S		0932	0-4'				
FS25A	S		0936	4'				
FS24	S		0939	4'				
FS11A	S		1040	4'				
SW07	S		1227	0-4.0'				
FS05A	S		1323	4'				
	S							
	S							
	S							

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		3/20/20 15:30			
			4		
			6		

Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.26.2020 03.30.00 PM

Work Order #: 657041

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 03.26.2020

Checklist reviewed by: Jessica Kramer Date: 03.27.2020

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 245247

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 245247
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	9/26/2023