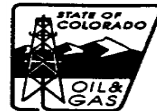


State of Colorado Oil and Gas Conservation Commission



FOR OGCC USE ONLY

Received 3/31/2014

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax 894-2109

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:
[x] Spill [] Complaint
[] Inspection [] NOAV
Tracking No: 2147255

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

- [x] Spill or Release [] Plug & Abandon [] Central Facility Closure [] Site/Facility Closure [x] Other (describe): No Further Action Request

GENERAL INFORMATION

OGCC Operator Number: 8960
Name of Operator: Bonanza Creek Energy Operating Company LLC
Address: 410 17th Street, Suite 1400
City: Denver State: CO Zip: 80202
Contact Name and Telephone: Name: Brian Dodek No: 720-225-6653 Fax: 720-279-2331
API/Facility No: 05-123-35968 County: Weld
Facility Name: North Platte P-T-34HZ Facility Number: 429920
Well Name: North Platte P-T-34HZ Well Number:
Location (QtrQtr, Sec, Twp, Rng, Meridian): SESE 27-T5N-R63W Latitude: 40.363463 Longitude: -104.414302

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): Oil
Site Conditions: Is location within a sensitive area (according to Rule 901e)? [x] Y [] N If yes, attach evaluation. Surface Water Nearby.
Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Rangeland
Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Valent Sand, 0 to 3 percent slope
Potential receptors (water wells within 1/4 mi, surface waters, etc.): Surface water (canals) 70' southwest of the site and 330' north of the site, wetlands 2,600 feet southwest of the site, buildings 680' northeast of the site, and a water well 750' northwest of the site.
Description of Impact (if previously provided, refer to that form or document):
Impacted Media (check): [x] Soils [] Vegetation [] Groundwater [] Surface water
Extent of Impact: 60' SW-NE x 50' NW-SE, ground surface - 1' bgs
How Determined: Soil sample analytical results

REMEDIALTION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):
A Form 19 describing the release was submitted to the COGCC on December 17, 2013 (Spill # 2147255).
Describe how source is to be removed:
On December 10, 12, and 18, 2013, representative confirmation soil samples were collected from the base of the excavated area (Figure 1) and submitted for laboratory analysis of TPH and BTEX. Laboratory analytical results confirmed that TPH and BTEX concentrations were compliant with COGCC Table 910-1 concentration levels at the final extent of the excavation (Table 1). Approximately 36 cubic yards of impacted soil were removed and transported to licensed disposal facilities.
Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:
The impacted soil was transported to the Northwest Landfill in Ault, Colorado and the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal. Waste manifests are attached.

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado
(303) 894-2100 Fax 894-2109



Tracking Number:	2147255
Name of Operator:	Bonanza Creek Energy Operating Company LLC
OGCC Operator No:	8960
Received Date:	3/31/2014
Well Name & No:	North Platte P-T-34HZ
Facility Name & No.:	North Platte P-T-34HZ / 429920

REMEDIATION WORKPLAN (CONT.)

OGCC Employee: **R. Allison**

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
Groundwater was not encountered during excavation activities.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.
Bonanza Creek's production facility remains at the site. The excavation area was backfilled with clean soil and restored to its pre-release grade. As the release occurred within the footprint of the facility, reclamation is not necessary.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.
Is further site investigation required? Y N If yes, describe:
No further investigation is required at this site. Laboratory results for the excavation soil samples confirmed that TPH and BTEX concentrations were compliant with COGCC Table 910-1 concentration levels at the final extent of the excavation. As all impacted material has been removed from the site and disposed of at licensed disposal facilities, Bonanza Creek is requesting a No Further Action determination.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):
The impacted soil was transported to the Northwest Landfill in Ault, Colorado and the Buffalo Ridge Landfill in Keenesburg, Colorado for disposal. Waste manifests are attached.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began:	12/7/13	Date Site Investigation Completed:	12/18/13	Remediation Plan Submitted:	3/31/14
Remediation Start Date:	12/7/13	Anticipated Completion Date:	1/10/14	Actual Completion Date:	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: **Brian Dodek**






Signed: Title: **Environmental Specialist** Date: 3/31/14

OGCC Approved: _____ Title: **Northeast EPS** Date: **4/21/2014**



IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

-  RELEASE
-  SOIL SAMPLE
-  IRRIGATION CANAL
-  EXCAVATION EXTENT
-  BERM

AST: ABOVEGROUND STORAGE TANK
 ECD: EMISSION CONTROL DEVICE

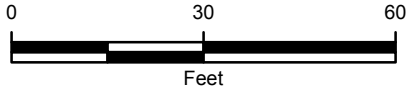


FIGURE 1
 EXCAVATION SITE MAP
 NORTH PLATTE P-T-34HZ
 SESE SEC 27-T5N-R63W
 WELD COUNTY, COLORADO
BONANZA CREEK ENERGY OPERATING COMPANY LLC



TABLE 1
SOIL SAMPLE ANALYTICAL DATA
NORTH PLATTE P-T-34HZ
BONANZA CREEK ENERGY OPERATING COMPANY LLC

SAMPLE ID	SAMPLE DATE	DEPTH (bgs)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (Total) (mg/kg)	TPH-GRO (mg/kg)	TEPH DRO+ORO (mg/kg)
B01 @6"	12/10/2013	6"	1.0	14	9.6	58	1,800	10,750
B02 @6"	12/10/2013	6"	<0.0050	0.0088	0.018	0.16	28	<50
B03 @6"	12/10/2013	6"	<0.0050	<0.0050	<0.0050	<0.0050	2.4	<50
B04 @6"	12/10/2013	6"	<0.0050	<0.0050	<0.0050	<0.0050	1.1	<50
B05 @7"	12/12/2013	7"	0.0042	0.090	0.11	0.67	1.1	954
B06 @1'	12/18/2013	1'	<0.0050	<0.0050	<0.0050	<0.0050	<0.5	<50
COGCC Allowable Level			0.17	85	100	175	500	

Notes:

bgs - below ground surface

mg/kg - milligrams per kilogram

TPH - Total Petroleum Hydrocarbons

GRO - Gasoline Range Organics

TEPH - Total Extractable Petroleum Hydrocarbons

DRO - Diesel Range Organics

ORO - Oil Range Organics

< - less than laboratory reporting limit

COGCC - Colorado Oil and Gas Conservation Commission

Results noted in bold exceed COGCC allowable levels.



68768

Original Ticket# 892551

Buffalo Ridge
11655 CR 59
Keenesburg, CO, 80643
Ph: (303)732-0218

Customer Name BONANZACREEKENERGYINC BONANZA CARRIER ENERGES SERVICES LLC
Ticket Date 01/02/2014 Vehicle# 106 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000321
State Waste Code 005582 Bill EPA ID
Manifest Destination Grid
PO NorthPlattePT34hz
Profile 114923CD (HYDRICARBON BEARING SOIL)
Generator 125-BONANZACREEK BONANZA CREEK ENERGY INC



WASTE MANAGEMENT

Hours: M-F 7AM-4PM, Sat: 8AM-1PM

Time In 01/02/2014 14:12:42 Out 01/02/2014 14:12:42
Gross 40280 lb
Tare 24740 lb
Net 15540 lb
Tons 7.77

Product Ldx Qty Unit Rate Tax Amount Origin

- 1 Special Misc-Tons- 100 7.77 Tons
- 2 FUEL-Fuel Surcharg 100 %
- 3 EVF-L-Standard Env 100 1 Load
- 4 RCR-P-Regulatory C 100 %

Janette Roddy

Total Tax
Total Ticket



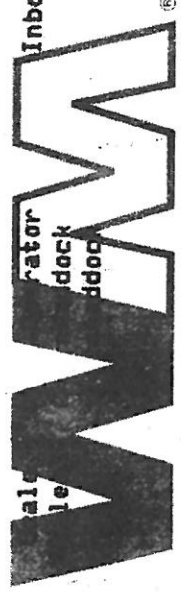
68758

Buffalo Ridge
11655 CR 59
Keenesburg, CO, 80643
Ph: (303) 732-0218

Original
Ticket# 892542

Customer Name **BONANZACREEKENERGYINC BONANZA** Carrier **ENERGES Services LLC**
Ticket Date **01/02/2014** Vehicle# **207** Volume
Payment Type **Credit Account**
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest **005581**
Destination **Grid**
Profile **NorthPlattePT34hz**
Generator **114923CD (HYDROCARBON BEARING SOIL)**
125-BONANZACREEK BONANZA CREEK ENERGY INC

Container
Driver
Check#
Billing # **0000321**
Gen EPA ID



Scale
Inbound
Gross
Tare
Net
Tons
41940 lb
23560 lb
18380 lb
9.19

WASTE MANAGEMENT

Hours: M-F 7AM-4PM, Sat: 8AM-1PM

Product	LDX	Qty.	UDM	Rate	Tax	Amount	Origin
1 Special Misc-Tons- 100		9.19	Tons				
2 FUEL-Fuel Surcharg 100			%				
3 EVF-L-Standard Env 100		1	Load				
4 RCR-P-Regulatory C 100			%				

#207
R. Chen

Total Tax
Total Ticket

Driver's Signature



68711

Buffalo Ridge
11655 CR 59
Keenesburg, CO, 80643
Ph: (303)732-0218

Original
Ticket# 892495

Customer Name	BONANZACREEKENERGYINC BONANZA	Carrier	ENERGES Services LLC
Ticket Date	01/02/2014	Vehicle#	207
Payment Type	Credit Account	Container	Volume
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000321
State Waste Code		Gen EPA ID	
Manifest	005580		
Destination		Grid	
PO	NorthPlattePT34hz		
Profile	114923CO (HYDROCARBON BEARING SOIL)		
Generator	125-BONANZACREEK BONANZA CREEK ENERGY INC		

	Time	Generator	Inbound	Gross	
In	01/02/2014 11:08:55				43120 lb
Out	01/02/2014 11:08:55			Tare	23560 lb
				Net	19560 lb
				Tons	9.78



WASTE MANAGEMENT

Hours: M-F 7AM-4PM, Sat: 8AM-1PM

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Special Misc-Tons-	100	9.78	Tons				
2 FUEL-Fuel Surcharg	100		%				
3 EVF-L-Standard Env	100	1	Load				
4 RCR-P-Regulatory C	100		%				

Handwritten signature: J. Chae #207

Total Tax
Total Ticket

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
N/A

2. Page 1 of 1

3. Emergency Response Phone
(800) 424-9300

4. Waste Tracking Number
005547

5. Generator's Name and Mailing Address
BONANZA CREEK ENERGY, INC

Generator's Site Address (if different than mailing address)
NORTH Platte U-Y-34 HWY

Generator's Phone: (661) 444-0899

6. Transporter 1 Company Name: S&T SERVICES U.S. EPA ID Number

7. Transporter 2 Company Name U.S. EPA ID Number

8. Designated Facility Name and Site Address: Buffalo Ridge Landfill 11655 WCR 59 Keenesburg CO 80643 U.S. EPA ID Number
Facility's Phone: (303) 732-0218

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. NON REGULATED SOLID (HYDROCARBON BEARING SOIL) 11492300			10 yards	
2.			12.14 DMS	
3.				
4.				

13. Special Handling Instructions and Additional Information
Customer Acct #: BR 321 Customer Name: BONANZA CREEK ENERGY, INC
Transporter 1 address & phone #:
Transporter 2 address & phone #:

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and governmental regulations.

Generator's/Offor's Printed/Typed Name: Fidel Sandoval Signature: [Signature] Month: 02 Day: 27 Year: 14

15. International Shipments Import to U.S. Export from U.S. Port of entry/exit: Date leaving U.S.:

16. Transporter Acknowledgement of Receipt of Materials
Transporter 1 Printed/Typed Name: Sandoval Signature: [Signature] Month: 02 Day: 27 Year: 14
Transporter 2 Printed/Typed Name Signature Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: A. Corner Signature: [Signature] Month: 02 Day: 27 Year: 14

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 19, 2013

John Cocroft

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: BC - North Platte P-T-34Hz

Enclosed are the results of analyses for samples received by Summit Scientific on 12/18/13 15:46. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury

President / Laboratory Manager



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
Project Manager: John Cocroft

Reported:
12/19/13 01:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B06@1'	R312109-01	Soil	12/18/13 09:50	12/18/13 15:46

Summit Scientific R312109

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-374-5933 Fax

Client: LTE
Address: 4600 W 60th Arvada, CO
City/State/Zip:
Phone:
Sample Name: Kiis Steward
Project Manager: John Cocroft
E-Mail: jcocroft@ltenv.com
Project Name: P-T-34Hz
Project Number:
Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
B06@1'	12/18/13	9:50	1	None HCl HNO ₃	Soil Groundwater Other (Specify) Air - Canister Serial #	Matrix XXX	
Retrieved by:	Date/Time: 12/18/13	Received by:	Date/Time: 12/18/13	Turn Around Time (Check):	Notes:		
Requisitioned by:	Date/Time:	Requisitioned in Lab by:	Date/Time:	Same Day <input type="checkbox"/>	72 Hours <input checked="" type="checkbox"/>	Standard <input type="checkbox"/>	
				Sample Integrity:	Temperature Upon Receipt:		
				Intact: (Yes/No)	3°C		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
Project Manager: John Cocroft

Reported:
12/19/13 01:20

B06@1'
R312109-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/18/13 09:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	3121804	12/18/13	12/18/13	8015M	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 12/18/13 09:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		85.5 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/18/13 09:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121805	12/18/13	12/18/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/18/13 09:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
 Project Manager: John Cocroft

Reported:
 12/19/13 01:20

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121804 - EPA 3550A

Blank (3121804-BLK1)				Prepared & Analyzed: 12/18/13						
C10-C28 (TEPH-DRO)	ND	50	mg/kg							
C28-C36 (TEPH-ORO)	ND	50	"							
LCS (3121804-BS1)				Prepared & Analyzed: 12/18/13						
C10-C28 (TEPH-DRO)	492	50	mg/kg	488	101	73-134				
Matrix Spike (3121804-MS1)				Source: R312106-01 Prepared & Analyzed: 12/18/13						
C10-C28 (TEPH-DRO)	540	50	mg/kg	480	ND	113	50-148			
Matrix Spike Dup (3121804-MSD1)				Source: R312106-01 Prepared: 12/18/13 Analyzed: 12/19/13						
C10-C28 (TEPH-DRO)	562	50	mg/kg	484	ND	116	50-148	4.00	13	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
Project Manager: John Cocroft

Reported:
12/19/13 01:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121805 - EPA 5030 Soil MS

Blank (3121805-BLK1)

Prepared & Analyzed: 12/18/13

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0437		"	0.0394		111	23-173			
Surrogate: Toluene-d8	0.0384		"	0.0398		96.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0398		103	21-167			

LCS (3121805-BS1)

Prepared: 12/18/13 Analyzed: 12/19/13

Benzene	0.0894	0.0020	mg/kg	0.0982		91.0	58-130			
Toluene	0.106	0.0050	"	0.0982		107	61-134			
Ethylbenzene	0.138	0.0050	"	0.0982		141	74-139			
m,p-Xylene	0.239	0.010	"	0.196		122	73-137			
o-Xylene	0.129	0.0050	"	0.0982		132	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0436		"	0.0389		112	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0393		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0393		101	21-167			

Matrix Spike (3121805-MS1)

Source: R312106-01

Prepared & Analyzed: 12/18/13

Benzene	0.0876	0.0020	mg/kg	0.0969	ND	90.4	30-131			
Toluene	0.0898	0.0050	"	0.0969	ND	92.6	30-134			
Ethylbenzene	0.0942	0.0050	"	0.0969	ND	97.2	22-153			
m,p-Xylene	0.181	0.010	"	0.194	ND	93.5	10-159			
o-Xylene	0.0893	0.0050	"	0.0969	ND	92.1	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0449		"	0.0384		117	23-173			
Surrogate: Toluene-d8	0.0389		"	0.0388		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0388		100	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
Project Manager: John Cocroft

Reported:
12/19/13 01:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121805 - EPA 5030 Soil MS

Matrix Spike Dup (3121805-MSD1)	Source: R312106-01			Prepared: 12/18/13	Analyzed: 12/19/13					
Benzene	0.0893	0.0020	mg/kg	0.0973	ND	91.8	30-131	1.87	34	
Toluene	0.0938	0.0050	"	0.0973	ND	96.4	30-134	4.42	30	
Ethylbenzene	0.0974	0.0050	"	0.0973	ND	100	22-153	3.40	24	
m,p-Xylene	0.189	0.010	"	0.195	ND	97.3	10-159	4.35	68	
o-Xylene	0.0920	0.0050	"	0.0973	ND	94.6	31-151	3.05	38	
Surrogate: 1,2-Dichloroethane-d4	0.0453		"	0.0385		118	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0389		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0389		102	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13025
Project Manager: John Cocroft

Reported:
12/19/13 01:20

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 13, 2013

Justin Solomon

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: BC - North Platte P-T-34Hz

Enclosed are the results of analyses for samples received by Summit Scientific on 12/12/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury

President / Laboratory Manager



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

B05@7"
R312075-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/12/13 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	890	50	mg/kg	1	3121209	12/12/13	12/12/13	8015M	
C28-C36 (TEPH-ORO)	64	50	"	"	"	"	"	"	

Date Sampled: 12/12/13 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		114 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/12/13 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0042	0.0020	mg/kg	1	3121208	12/12/13	12/12/13	EPA 8260B	
Toluene	0.090	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.11	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.67	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.1	0.50	"	"	"	"	"	"	

Date Sampled: 12/12/13 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.1 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.2 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.8 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121209 - EPA 3550A

Blank (3121209-BLK1)

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	ND	50	mg/kg							
C28-C36 (TEPH-ORO)	ND	50	"							

LCS (3121209-BS2)

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	528	50	mg/kg	498		106	73-134			
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Matrix Spike (3121209-MS1)

Source: R312076-01

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	453	50	mg/kg	490	29.2	86.5	50-148			
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Matrix Spike (3121209-MS2)

Source: R312076-02

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	424	50	mg/kg	497	26.1	80.1	50-148			
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Matrix Spike Dup (3121209-MSD1)

Source: R312076-01

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	444	50	mg/kg	498	29.2	83.3	50-148	1.98	13	
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Matrix Spike Dup (3121209-MSD2)

Source: R312076-02

Prepared: 12/12/13 Analyzed: 12/13/13

C10-C28 (TEPH-DRO)	435	50	mg/kg	492	26.1	83.0	50-148	2.37	13	
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Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121208 - EPA 5030 Soil MS

Blank (3121208-BLK1)

Prepared & Analyzed: 12/12/13

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0372		"	0.0381	97.8	23-173				
Surrogate: Toluene-d8	0.0349		"	0.0385	90.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0372		"	0.0385	96.7	21-167				

LCS (3121208-BS1)

Prepared & Analyzed: 12/12/13

Benzene	0.0758	0.0020	mg/kg	0.0958	79.1	58-130				
Toluene	0.0886	0.0050	"	0.0958	92.5	61-134				
Ethylbenzene	0.118	0.0050	"	0.0958	124	74-139				
m,p-Xylene	0.217	0.010	"	0.192	113	73-137				
o-Xylene	0.119	0.0050	"	0.0958	124	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0379	94.4	23-173				
Surrogate: Toluene-d8	0.0345		"	0.0383	90.1	20-170				
Surrogate: 4-Bromofluorobenzene	0.0372		"	0.0383	97.2	21-167				

LCS (3121208-BS2)

Prepared: 12/12/13 Analyzed: 12/13/13

Benzene	0.0794	0.0020	mg/kg	0.0982	80.8	58-130				
Toluene	0.0907	0.0050	"	0.0982	92.3	61-134				
Ethylbenzene	0.122	0.0050	"	0.0982	124	74-139				
m,p-Xylene	0.224	0.010	"	0.196	114	73-137				
o-Xylene	0.122	0.0050	"	0.0982	124	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0389	94.2	23-173				
Surrogate: Toluene-d8	0.0353		"	0.0393	89.8	20-170				
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0393	93.7	21-167				

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121208 - EPA 5030 Soil MS

Matrix Spike (3121208-MS1)	Source: R312076-01			Prepared: 12/12/13		Analyzed: 12/13/13	
Benzene	0.0783	0.0020	mg/kg	0.0994	ND	78.8	30-131
Toluene	0.0899	0.0050	"	0.0994	ND	90.4	30-134
Ethylbenzene	0.121	0.0050	"	0.0994	ND	122	22-153
m,p-Xylene	0.226	0.010	"	0.199	ND	114	10-159
o-Xylene	0.125	0.0050	"	0.0994	ND	126	31-151
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0404</i>		"	<i>0.0394</i>		<i>103</i>	<i>23-173</i>
<i>Surrogate: Toluene-d8</i>	<i>0.0362</i>		"	<i>0.0398</i>		<i>91.0</i>	<i>20-170</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0386</i>		"	<i>0.0398</i>		<i>97.1</i>	<i>21-167</i>

Matrix Spike (3121208-MS2)	Source: R312076-02			Prepared: 12/12/13		Analyzed: 12/13/13	
Benzene	0.0779	0.0020	mg/kg	0.0969	ND	80.4	30-131
Toluene	0.0893	0.0050	"	0.0969	ND	92.2	30-134
Ethylbenzene	0.120	0.0050	"	0.0969	ND	124	22-153
m,p-Xylene	0.221	0.010	"	0.194	ND	114	10-159
o-Xylene	0.122	0.0050	"	0.0969	ND	126	31-151
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0403</i>		"	<i>0.0384</i>		<i>105</i>	<i>23-173</i>
<i>Surrogate: Toluene-d8</i>	<i>0.0353</i>		"	<i>0.0388</i>		<i>91.0</i>	<i>20-170</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0377</i>		"	<i>0.0388</i>		<i>97.2</i>	<i>21-167</i>

Matrix Spike Dup (3121208-MSD1)	Source: R312076-01			Prepared: 12/12/13		Analyzed: 12/13/13			
Benzene	0.0795	0.0020	mg/kg	0.0978	ND	81.3	30-131	1.53	34
Toluene	0.0904	0.0050	"	0.0978	ND	92.4	30-134	0.588	30
Ethylbenzene	0.121	0.0050	"	0.0978	ND	124	22-153	0.0806	24
m,p-Xylene	0.225	0.010	"	0.196	ND	115	10-159	0.673	68
o-Xylene	0.126	0.0050	"	0.0978	ND	128	31-151	0.358	38
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0394</i>		"	<i>0.0387</i>		<i>102</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0353</i>		"	<i>0.0391</i>		<i>90.2</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0382</i>		"	<i>0.0391</i>		<i>97.7</i>	<i>21-167</i>		

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121208 - EPA 5030 Soil MS

Matrix Spike Dup (3121208-MSD2)	Source: R312076-02			Prepared: 12/12/13		Analyzed: 12/13/13				
Benzene	0.0798	0.0020	mg/kg	0.0998	ND	79.9	30-131	2.35	34	
Toluene	0.0911	0.0050	"	0.0998	ND	91.3	30-134	2.00	30	
Ethylbenzene	0.124	0.0050	"	0.0998	ND	124	22-153	3.36	24	
m,p-Xylene	0.229	0.010	"	0.200	ND	115	10-159	3.34	68	
o-Xylene	0.126	0.0050	"	0.0998	ND	127	31-151	3.52	38	
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0395		101	23-173			
Surrogate: Toluene-d8	0.0361		"	0.0399		90.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0399		95.9	21-167			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: BC - North Platte P-T-34Hz

Project Number: 0345-13029
Project Manager: Justin Solomon

Reported:
12/13/13 04:07

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

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Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 11, 2013

John Cocroft
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: P-T-34Hz

Enclosed are the results of analyses for samples received by Summit Scientific on 12/10/13 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@6"	R312044-01	Soil	12/10/13 13:40	12/10/13 16:00
B02@6"	R312044-02	Soil	12/10/13 13:45	12/10/13 16:00
B03@6"	R312044-03	Soil	12/10/13 13:48	12/10/13 16:00
B04@6"	R312044-04	Soil	12/10/13 13:50	12/10/13 16:00

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

B01@6"
R312044-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/10/13 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	10000	50	mg/kg	1	3121010	12/10/13	12/10/13	8015M	
C28-C36 (TEPH-ORO)	750	50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		564 %	30-150		"	"	"	"	S-02

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/13 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.0	0.020	mg/kg	10	3121009	12/10/13	12/10/13	EPA 8260B	
Toluene	14	0.050	"	"	"	"	"	"	E
Ethylbenzene	9.6	0.050	"	"	"	"	"	"	E
Xylenes (total)	58	0.050	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	1800	5.0	"	"	"	"	"	"	E

Date Sampled: 12/10/13 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		113 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		122 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		150 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

B02@6"
R312044-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/10/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	3121010	12/10/13	12/10/13	8015M	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		127 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0018	mg/kg	1	3121009	12/10/13	12/10/13	EPA 8260B	
Toluene	0.0088	0.0044	"	"	"	"	"	"	
Ethylbenzene	0.018	0.0044	"	"	"	"	"	"	
Xylenes (total)	0.16	0.0044	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	28	0.44	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

B03@6"
R312044-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/10/13 13:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	3121010	12/10/13	12/10/13	8015M	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		95.2 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/13 13:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121009	12/10/13	12/10/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.4	0.50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

B04@6"
R312044-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/10/13 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	3121010	12/10/13	12/10/13	8015M	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		95.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/13 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121009	12/10/13	12/10/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.1	0.50	"	"	"	"	"	"	

Date Sampled: 12/10/13 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	21-167		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
 Project Manager: John Cocroft

Reported:
 12/11/13 19:16

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121010 - EPA 3550A

Blank (3121010-BLK1)

Prepared & Analyzed: 12/10/13

C10-C28 (TEPH-DRO)	ND	50	mg/kg							
C28-C36 (TEPH-ORO)	ND	50	"							

LCS (3121010-BS1)

Prepared & Analyzed: 12/10/13

C10-C28 (TEPH-DRO)	514	50	mg/kg	494		104	73-134			
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Matrix Spike (3121010-MS1)

Source: R312045-03

Prepared & Analyzed: 12/10/13

C10-C28 (TEPH-DRO)	500	50	mg/kg	472	ND	106	50-148			
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Matrix Spike Dup (3121010-MSD1)

Source: R312045-03

Prepared: 12/10/13 Analyzed: 12/11/13

C10-C28 (TEPH-DRO)	500	50	mg/kg	476	ND	105	50-148	0.146	13	
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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121009 - EPA 5030 Soil MS

Blank (3121009-BLK1)

Prepared & Analyzed: 12/10/13

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0407</i>		<i>"</i>	<i>0.0390</i>		<i>104</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0376</i>		<i>"</i>	<i>0.0394</i>		<i>95.5</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0394</i>		<i>99.7</i>	<i>21-167</i>			

LCS (3121009-BS1)

Prepared & Analyzed: 12/10/13

Benzene	0.0843	0.0020	mg/kg	0.0982		85.9	58-130			
Toluene	0.0874	0.0050	"	0.0982		89.0	61-134			
Ethylbenzene	0.0965	0.0050	"	0.0982		98.3	74-139			
m,p-Xylene	0.192	0.010	"	0.196		97.9	73-137			
o-Xylene	0.0946	0.0050	"	0.0982		96.3	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0413</i>		<i>"</i>	<i>0.0389</i>		<i>106</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0378</i>		<i>"</i>	<i>0.0393</i>		<i>96.2</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0383</i>		<i>"</i>	<i>0.0393</i>		<i>97.3</i>	<i>21-167</i>			

Matrix Spike (3121009-MS1)

Source: R312045-03

Prepared & Analyzed: 12/10/13

Benzene	0.0840	0.0020	mg/kg	0.0960	ND	87.6	30-131			
Toluene	0.0892	0.0050	"	0.0960	ND	93.0	30-134			
Ethylbenzene	0.0955	0.0050	"	0.0960	ND	99.5	22-153			
m,p-Xylene	0.190	0.010	"	0.192	ND	99.0	10-159			
o-Xylene	0.0933	0.0050	"	0.0960	ND	97.2	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0410</i>		<i>"</i>	<i>0.0380</i>		<i>108</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0366</i>		<i>"</i>	<i>0.0384</i>		<i>95.4</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0372</i>		<i>"</i>	<i>0.0384</i>		<i>97.0</i>	<i>21-167</i>			

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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
 Project Manager: John Cocroft

Reported:
 12/11/13 19:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch 3121009 - EPA 5030 Soil MS

Matrix Spike Dup (3121009-MSD1)	Source: R312045-03			Prepared: 12/10/13	Analyzed: 12/11/13					
Benzene	0.0869	0.0020	mg/kg	0.0967	ND	89.8	30-131	3.31	34	
Toluene	0.0922	0.0050	"	0.0967	ND	95.3	30-134	3.26	30	
Ethylbenzene	0.0941	0.0050	"	0.0967	ND	97.3	22-153	1.49	24	
m,p-Xylene	0.188	0.010	"	0.193	ND	97.1	10-159	1.08	68	
o-Xylene	0.0933	0.0050	"	0.0967	ND	96.4	31-151	0.0270	38	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0437</i>		<i>"</i>	<i>0.0383</i>		<i>114</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0377</i>		<i>"</i>	<i>0.0387</i>		<i>97.4</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0375</i>		<i>"</i>	<i>0.0387</i>		<i>97.0</i>	<i>21-167</i>			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: P-T-34Hz

Project Number: [none]
Project Manager: John Cocroft

Reported:
12/11/13 19:16

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference