

1625 Broadway
Suite 2200.
Denver, CO 80202

Tel: 303.228.4000
Fax: 303.228.4286

www.nobleenergyinc.com



North America Division

August 28, 2012

Mr. John Axelson
Department Of Natural Resources
Oil & Gas Conservation Commission
1120 Lincoln St., Suite 801
Denver CO 80203-2136

RE: Form 27 and Excavation Report
Herbst B27-1, 27-7 tank battery
Spill#2229356
API# 05-123-12512
NWNE Sec. 27, T5N, R64W
Weld County, Colorado

Dear Mr. Axelson:

Please find attached a completed form 27 and excavation report for the Herbst B27-1, 27-7 tank battery. Noble Energy Inc. would like to claim business confidentiality protection for the information submitted in this letter, the supporting materials attached and all previous and subsequent correspondence related to this matter. Please contact the Noble Energy Environmental Department at (303) 228-4158 if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ryan Bruner', with a long horizontal flourish extending to the right.

Ryan Bruner
Environmental and Regulatory Supervisor

Attachments

State of Colorado
Oil and Gas Conservation Commission

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



#7326

FOR OGCC USE ONLY

RECEIVED
8/28/2012

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.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe): _____

OGCC Employee:

☒ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No: 2229356

OGCC Operator Number: 100322

Name of Operator: Noble Energy, Inc.

Address: 1625 Broadway, Suite 2200

City: Denver State: CO Zip: 80202

Contact Name and Telephone:

Ryan Bruner

No: 303-228-4158

Fax: 303-228-4286

API Number: 05-123-12512

County: Weld

Facility Name: Herbst

Facility Number: B 27-1

Well Name: Herbst

Well Number: B 27-1

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNE Sec. 27 T5N R64W 6PM Latitude: 40.377409 Longitude: -104.533327

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Condensate

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☒ Y ☐ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Agriculture

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Dacono Clay Loam, 0-1% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Water well 710' north, unnamed pond 1,400' southwest, Latham Ditch 3,800' south

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):



Soils

Extent of Impact:

50' x 40' x 12' to 16'

How Determined:

Excavation



Vegetation



Groundwater

To be determined

Site Assessment



Surface Water

REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Tank valves were vandalized, releasing condensate into the secondary containment. Upon discovery, the standing liquids were recovered by a vacuum truck and transferred from the location. See Form 19 (Document #2229356).

Describe how source is to be removed:

Impacted soil to the north and south exceeding state cleanup standards has been removed from the Site. Impacted soil remains to the east and west that will require further investigation and remediation after access is obtained from the landowner. The saturated zone impact will be evaluated through future groundwater monitoring. All soil samples were analyzed for BTEX and TPH and samples to the north and south were in compliance with COGCC standards.

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.:

Impacted soil was removed via excavation and transported to the Buffalo Ridge Landfill in Keenesburg, Colorado.

NOBLE

FORM
27
Rev 6/99State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax: (303)894-2109

Page 2

REMEDIAL WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: API #. 123 12512
Received Date: Location ID # 323067
Well Name & No: _____ Herbst B 27-1
Facility Name & No: _____ Herbst B 27-1

Page 2

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Groundwater monitoring wells will be installed; two monitoring wells will be installed downgradient and one upgradient of the excavation extent. Quarterly groundwater sampling will be conducted, and groundwater samples will be analyzed for BTEX until four consecutive quarters of groundwater samples are in compliance with COGCC standards.

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.

Clean fill dirt was imported and used to backfill the excavation, and the original grade was restored. The oil and gas production facility remains on site.

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:

Three groundwater monitoring wells will be installed and sampled. Groundwater sampling will continue until four consecutive quarters of groundwater samples are in compliance with COGCC standards. Impacted soil remains to the east and west that will require further investigation and remediation.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Approximately 1,200 cubic yards of impacted soil were transported and disposed of at the Buffalo Ridge Landfill in Keenesburg, Colorado.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>6/19/12</u>	Date Site Investigation Completed: <u>TBD</u>	Date Remediation Plan Submitted: <u>8/28/12</u>
Remediation Start Date: <u>7/3/12</u>	Anticipated Completion Date: <u>TBD</u>	Actual Completion Date: <u>TBD</u>

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

Print Name: Ryan Bruner

Signed: _____

Title: Regulatory and Environmental SupervisorDate: 8/28/12OGCC Approved: Carly BrunerTitle: FORDate: 09/25/2012

COAs: ① One of the downgradient monitoring well must be a compliance well if GW impact has been determined.

John Axelsson
EPS NE Region

② Identify potential downgradient GW receptors.



August 3, 2012

Mr. Todd Cullum
Base Construction Foreman
Noble Energy, Inc.
2115 117th Avenue
Greeley, Colorado 80634

**RE: Remediation Activity Summary Report
Herbst B 27-1, 27-7 Tank Battery Vandalism Site
Weld County, Colorado
COGCC Tracking #2229356**

Dear Mr. Cullum:

LT Environmental, Inc. (LTE), under the direction of Noble Energy, Inc. (Noble), conducted environmental remediation and soil sampling activities following the identification of petroleum hydrocarbon impacted soil at the Herbst B 27-1, 27-7 Tank Battery Vandalism Site.

The legal site description is the northwest quarter of the northeast quarter of section 27, township 5 north, and range 64 west (Figure 1). The Site is located approximately 0.35 miles west and 50 feet south of the intersection of County Road 57 and County Road 54 in Weld County, Colorado.

A Noble contractor excavated approximately 1,200 cubic yards of impacted soil, which were transported for disposal to Buffalo Ridge Landfill in Keenesburg, Colorado. The total extent of the excavation, as illustrated on Figure 2, was approximately 50 feet east-west by 40 feet north-south, to a depth of 12 feet to 16 feet below ground surface (bgs). Groundwater was not encountered during excavation activities. Additional clean soil was imported to backfill the excavation.

On July 3 and July 5, 2012, LTE personnel were on site to oversee excavation activities, field screen soil, document site activities, conduct health and safety monitoring, and collect confirmation samples for laboratory analysis. During remediation activities, soil staining was observed from ground surface to between 12 feet and 16 feet bgs. Composite soil samples were collected from the impacted interval along the sidewalls and floor of the excavation. Each sample was field screened for volatile organic compounds with a photo-ionization detector to determine if additional excavation was required. Once field screening indicated impacted soil had been excavated, confirmation samples were collected and submitted to an analytical laboratory.

Nine composite soil samples were collected from the excavation sidewalls and two composite soil samples were collected at the base of the excavation and submitted to Summit Scientific Laboratory of Golden, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) by

United States Environmental Protection Agency (EPA) Method 8260B and TPH as diesel range organics (DRO) by EPA Method 8015.

The Colorado Oil and Gas Conservation Commission (COGCC) cleanup standards for BTEX in soil are 0.17 milligrams per kilogram (mg/kg), 85 mg/kg, 100 mg/kg, and 175 mg/kg, respectively. The COGCC standard for TPH in soil is 500 mg/kg.

Soil analytical results indicated samples SS06, SS07, and FS02 exceeded the COGCC standard for benzene at concentrations of 0.45 mg/kg, 0.42 mg/kg and 44 mg/kg respectively. Sample FS02 exceeded the COGCC standard for toluene at a concentration of 120 mg/kg. Samples SS05, SS06, SS07, and FS02 exceeded the COGCC standard for TPH at concentrations of 3,180 mg/kg, 1,700 mg/kg, 4,200 mg/kg, and 13,900 mg/kg, respectively. All other soil samples were in compliance with the COGCC standards. The soil analytical results are summarized in Table 1. The laboratory analytical reports are attached.

Excavation activities were limited in the east and west directions due to the agricultural field and irrigation ditch surrounding the Site. Access restrictions in the east/west directions also limited vertical soil removal. After the anticipated growing season, further site assessment and remediation activities will be conducted (expected October/November 2012).

Per the excavation activities conducted at the Site, accessible impacted soil to the north and south exceeding state cleanup standards was removed from the Site. Impacted soil remains to the east and west that will require further investigation and remediation. Post-excavation groundwater monitoring activities will be conducted at the Site to document the performance of remediation activities and to ensure the protection of public health and the environment. Results will be presented in subsequent correspondence.

LTE appreciates the opportunity to provide environmental services to Noble. Please call LTE at 303-433-9788 if you have any questions or comments regarding this report.

Sincerely,

LT ENVIRONMENTAL, INC.



Rob Rebel, P.E.
Project Manager



Steve Kahn, P.E.
Principal

Attachments

Figure 1	Site Location Map
Figure 2	Site Map
Table 1	Soil Analytical Results
Attachment	Laboratory Analytical Reports

FIGURES

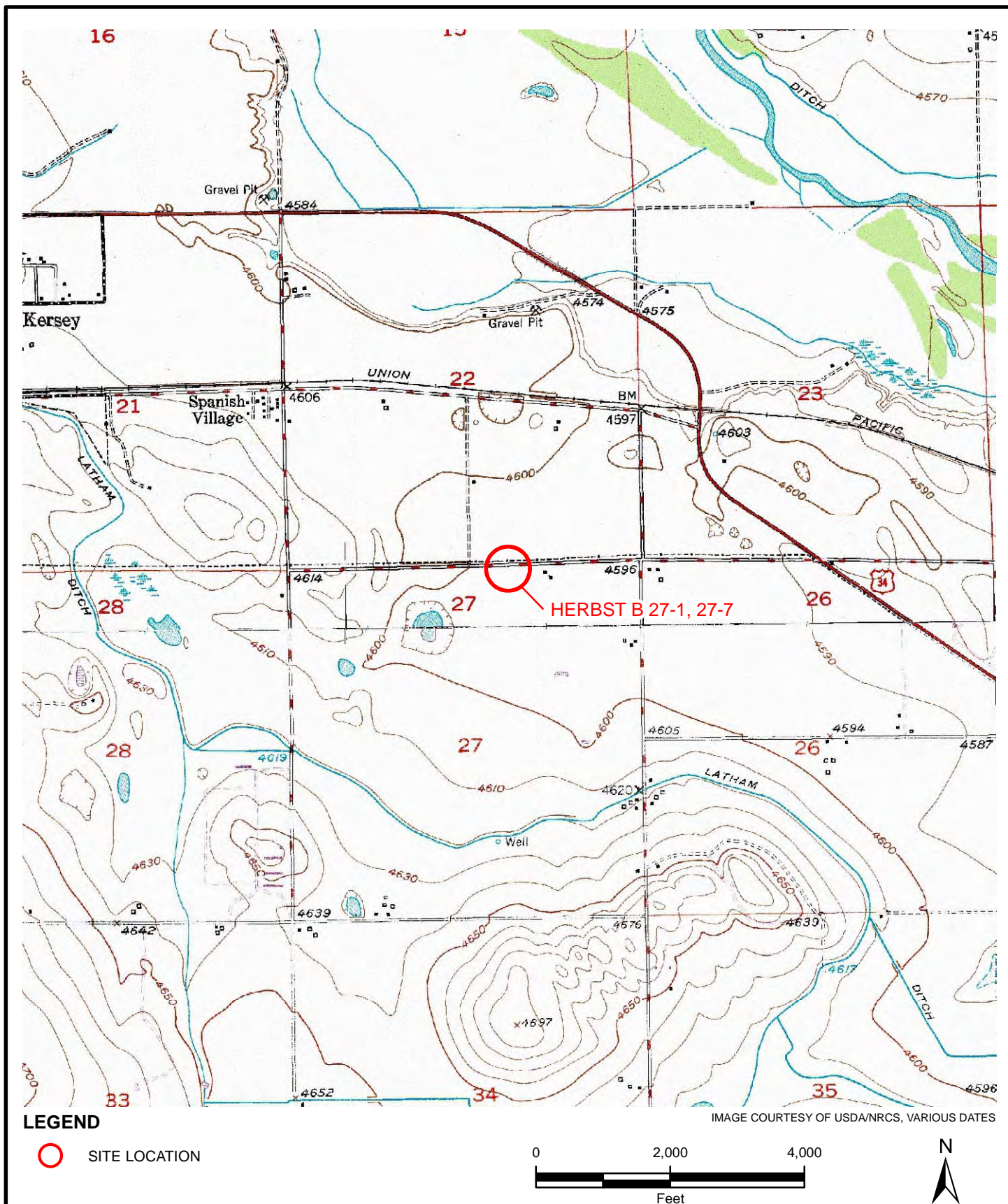


FIGURE 1
SITE LOCATION MAP
HERBST B 27-1, 27-7
VANDALISM SITE
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



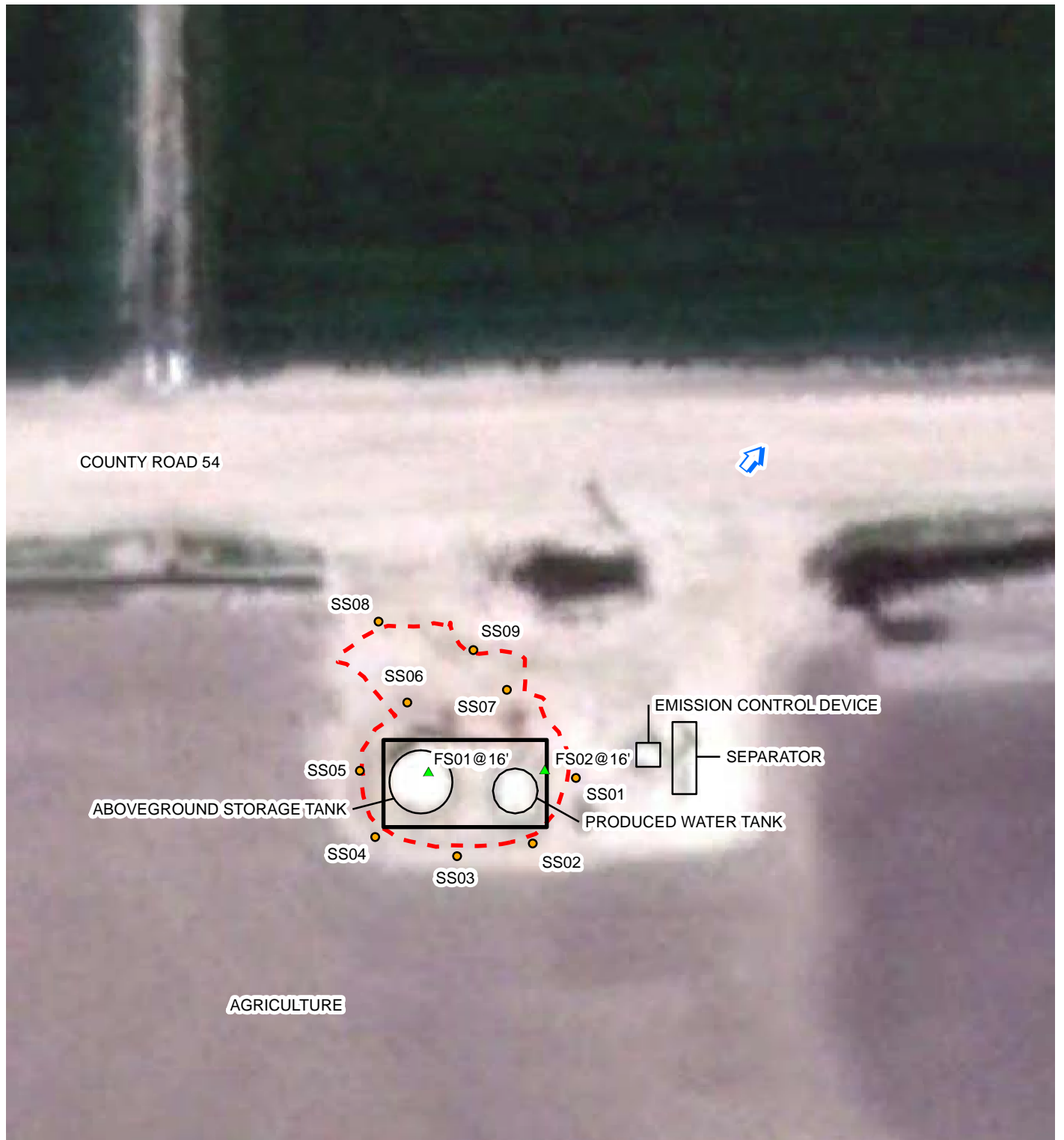


IMAGE COURTESY OF GOOGLE EARTH, 07/07/2011

LEGEND

- ▲ FLOOR SAMPLE
- SOIL SAMPLE
- ↑ ESTIMATED GROUNDWATER FLOW
- EXCAVATION EXTENT
- BERM
- CURRENT INFRASTRUCTURE

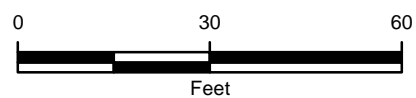


FIGURE 2
SITE MAP
 HERBST B 27-1, 27-7
 VANDALISM SITE
 WELD COUNTY, COLORADO
 NOBLE ENERGY, INC.



TABLE

TABLE 1

SOIL ANALYTICAL RESULTS
HERBST B 27-1, 27-7 TANK BATTERY VANDALISM SITE
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.

Sample ID	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
SS01	7/3/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	150	150
SS02	7/3/2012	<0.0050	0.017	0.0075	0.16	11	220	231
SS03	7/3/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SS04	7/3/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SS05	7/3/2012	0.10	5.2	1.8	24	680	2,500	3,180
SS06	7/3/2012	0.45	6.7	1.7	20	600	1,100	1,700
SS07	7/3/2012	0.42	12	3.7	38	1200	3,000	4,200
SS08	7/5/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
SS09	7/5/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.50	<50	<50.50
FS01@16'	7/3/2012	<0.0050	0.0086	<0.0050	0.050	3.4	120	123.4
FS02@16'	7/3/2012	44	120	31	160	3,900	10,000	13,900
COGCC Standard		0.17	85	100	175	--	--	500

Notes:

mg/kg - milligrams per kilogram

GRO - gasoline range organics

DRO - diesel range organics

TPH - total petroleum hydrocarbons

TPH is the sum of GRO and DRO

COGCC - Colorado Oil and Gas Conservation Commission

-- - not applicable

< indicates result is less than the stated laboratory method reporting limit

BOLD indicates result exceeds COGCC standards

Benzene, toluene, ethylbenzene, and total xylenes, and GRO analyzed by EPA Method 8260B

DRO analyzed by EPA Modified Method 8015

ATTACHMENT
LABORATORY ANALYTICAL REPORTS

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 05, 2012

Rob Rebel

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: NEP - Herbst B 27-1, 27-7

Enclosed are the results of analyses for samples received by Summit Scientific on 07/03/12 17:15. 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' or 'Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury

President / Laboratory Director



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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01	R207036-01	Soil	07/03/12 13:45	07/03/12 17:15
SS02	R207036-02	Soil	07/03/12 13:50	07/03/12 17:15
SS03	R207036-03	Soil	07/03/12 13:55	07/03/12 17:15
SS04	R207036-04	Soil	07/03/12 14:00	07/03/12 17:15
SS05	R207036-05	Soil	07/03/12 14:05	07/03/12 17:15
SS06	R207036-06	Soil	07/03/12 14:10	07/03/12 17:15
SS07	R207036-07	Soil	07/03/12 14:15	07/03/12 17:15
FS01@16'	R207036-08	Soil	07/03/12 14:20	07/03/12 17:15
FS02@16'	R207036-09	Soil	07/03/12 14:35	07/03/12 17:15

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: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

Summit Scientific 1207036

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-277-9331 Fax

Client: LT Environmental, Inc.
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788
Project Manager: Steve Kahn
E-Mail: skahn@ltenv.com
Project Name: Herbst B 27-1, 27-7
Project Number: 0083-12040

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	PAH SIM	As, Ba, Cd, Cr, Pb, Hg, Ni	Se, Ag, Zn	SAR, pH EC	
SS01	7/3/12	1345	1			X										
SS02		1350	1													
SS03		1355	1													
SS04		1400	1													
SS05		1405	1													
SS06		1410	1													
SS07		1415	1													
F501@16'		1420	1													
F502@16'		1435	1													
Relinquished by: <u>[Signature]</u> Date/Time: <u>7/3/12 1715</u>				Received by: <u>[Signature]</u> Date/Time: <u>7/3/12 1715</u>				Turn Around Time (Check) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> Standard				Notes:				
Relinquished by: <u>[Signature]</u> Date/Time: <u>7-3-12 1715</u>				Received by: <u>[Signature]</u> Date/Time: <u>7-3-12 1715</u>				Sample Integrity: Temperature Upon Receipt: <u>5.8</u> Intact: <u>Yes</u> / <u>No</u>								

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.

[Signature]



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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS01
R207036-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: 07/03/12 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	150	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: 07/03/12 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/03/12 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070321	07/03/12	07/03/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 07/03/12 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	30-150		"	"	"	"	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS02
R207036-02 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	220	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: **07/03/12 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		102 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070321	07/03/12	07/03/12	EPA 8260B	
Toluene	0.017	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0075	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.16	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	11	0.50	"	"	"	"	"	"	

Date Sampled: **07/03/12 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	30-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.8 %	30-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	30-150		"	"	"	"	

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS03
R207036-03 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: **07/03/12 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070321	07/03/12	07/03/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/03/12 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	30-150		"	"	"	"	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS04
R207036-04 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: **07/03/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070321	07/03/12	07/03/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/03/12 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	30-150		"	"	"	"	

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: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS05
R207036-05 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	2500	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: **07/03/12 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		125 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.10	0.050	mg/kg	10	2070321	07/03/12	07/04/12	EPA 8260B	
Toluene	5.2	0.050	"	"	"	"	07/03/12	"	
Ethylbenzene	1.8	0.050	"	"	"	"	"	"	
Xylenes (total)	24	0.050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	680	5.0	"	"	"	"	07/04/12	"	

Date Sampled: **07/03/12 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	30-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		104 %	30-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		75.2 %	30-150		"	"	"	"	

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS06
R207036-06 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1100	50	mg/kg	1	2070322	07/03/12	07/03/12	8015 DRO	

Date Sampled: **07/03/12 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.45	0.050	mg/kg	10	2070321	07/03/12	07/04/12	EPA 8260B	
Toluene	6.7	0.050	"	"	"	"	07/03/12	"	
Ethylbenzene	1.7	0.050	"	"	"	"	07/04/12	"	
Xylenes (total)	20	0.050	"	"	"	"	07/03/12	"	
Gasoline Range Hydrocarbons	600	5.0	"	"	"	"	07/04/12	"	

Date Sampled: **07/03/12 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		76.0 %	30-150		"	"	"	"	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

SS07
R207036-07 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	3000	50	mg/kg	1	2070322	07/03/12	07/04/12	8015 DRO	

Date Sampled: **07/03/12 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		132 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.42	0.050	mg/kg	10	2070321	07/03/12	07/04/12	EPA 8260B	
Toluene	12	0.050	"	"	"	"	"	"	
Ethylbenzene	3.7	0.050	"	"	"	"	07/03/12	"	
Xylenes (total)	38	0.050	"	"	"	"	07/04/12	"	
Gasoline Range Hydrocarbons	1200	5.0	"	"	"	"	07/03/12	"	E

Date Sampled: **07/03/12 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.4 %	30-150		"	"	07/04/12	"	
Surrogate: Toluene-d8		105 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		55.9 %	30-150		"	"	"	"	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

FS01@16'
R207036-08 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	120	50	mg/kg	1	2070322	07/03/12	07/04/12	8015 DRO	

Date Sampled: **07/03/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070321	07/03/12	07/03/12	EPA 8260B	
Toluene	0.0086	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.050	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.4	0.50	"	"	"	"	"	"	

Date Sampled: **07/03/12 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	30-150		"	"	"	"	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

FS02@16'
R207036-09 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/12 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	10000	50	mg/kg	1	2070322	07/03/12	07/04/12	8015 DRO	

Date Sampled: **07/03/12 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		469 %	30-150		"	"	"	"	S-02

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/12 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	44	0.050	mg/kg	10	2070321	07/03/12	07/03/12	EPA 8260B	E
Toluene	120	0.050	"	"	"	"	"	"	E
Ethylbenzene	31	0.050	"	"	"	"	"	"	E
Xylenes (total)	160	0.050	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	3900	5.0	"	"	"	"	07/04/12	"	E

Date Sampled: **07/03/12 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		852 %	30-150		"	"	"	"	S-02
Surrogate: Toluene-d8		2140 %	30-150		"	"	"	"	S-02
Surrogate: 4-Bromofluorobenzene		998 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

Total Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2070322 - EPA 3550A

Blank (2070322-BLK1)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	ND	50	mg/kg							
Blank (2070322-BLK2)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	ND	50	mg/kg							
Blank (2070322-BLK3)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	ND	50	mg/kg							
LCS (2070322-BS1)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	584	50	mg/kg	501		117	79.3-126			
LCS (2070322-BS2)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	597	50	mg/kg	501		119	79.3-126			
LCS (2070322-BS3)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	611	50	mg/kg	501		122	79.3-126			
LCS Dup (2070322-BSD1)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	619	50	mg/kg	501		124	79.3-126	5.78	11	
LCS Dup (2070322-BSD2)				Prepared: 07/03/12 Analyzed: 07/04/12						
C10-C28 (DRO)	613	50	mg/kg	501		122	79.3-126	2.77	11	

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

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

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

Batch 2070321 - EPA 5030 Soil MS

Blank (2070321-BLK1)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	ND	0.0050	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	0.0367		"	0.0397		92.4	30-150			
Surrogate: Toluene-d8	0.0378		"	0.0400		94.6	30-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	30-150			

Blank (2070321-BLK2)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	ND	0.0050	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	0.0375		"	0.0397		94.4	30-150			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.2	30-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4	30-150			

LCS (2070321-BS1)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	0.0898	0.0050	mg/kg	0.100		89.8	58.1-115			
Toluene	0.0992	0.0050	"	0.100		99.2	56.7-123			
Ethylbenzene	0.0980	0.0050	"	0.100		98.0	61.4-138			
m,p-Xylene	0.199	0.010	"	0.200		99.3	63.6-128			
o-Xylene	0.100	0.0050	"	0.100		100	62.6-134			
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0397		94.2	30-150			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.8	30-150			
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	30-150			

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

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

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

Batch 2070321 - EPA 5030 Soil MS

LCS (2070321-BS2)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	0.0950	0.0050	mg/kg	0.100		95.0	58.1-115			
Toluene	0.103	0.0050	"	0.100		103	56.7-123			
Ethylbenzene	0.105	0.0050	"	0.100		105	61.4-138			
m,p-Xylene	0.210	0.010	"	0.200		105	63.6-128			
o-Xylene	0.105	0.0050	"	0.100		105	62.6-134			
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0397		94.5	30-150			
Surrogate: Toluene-d8	0.0378		"	0.0400		94.5	30-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	30-150			

LCS Dup (2070321-BSD1)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	0.0953	0.0050	mg/kg	0.100		95.3	58.1-115	5.90	20	
Toluene	0.103	0.0050	"	0.100		103	56.7-123	4.12	20	
Ethylbenzene	0.105	0.0050	"	0.100		105	61.4-138	6.60	12.2	
m,p-Xylene	0.211	0.010	"	0.200		105	63.6-128	5.94	13.2	
o-Xylene	0.105	0.0050	"	0.100		105	62.6-134	4.54	12.2	
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0397		94.5	30-150			
Surrogate: Toluene-d8	0.0375		"	0.0400		93.8	30-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	30-150			

LCS Dup (2070321-BSD2)

Prepared: 07/03/12 Analyzed: 07/04/12

Benzene	0.100	0.0050	mg/kg	0.100		100	58.1-115	5.14	20	
Toluene	0.108	0.0050	"	0.100		108	56.7-123	5.13	20	
Ethylbenzene	0.110	0.0050	"	0.100		110	61.4-138	4.93	12.2	
m,p-Xylene	0.218	0.010	"	0.200		109	63.6-128	3.94	13.2	
o-Xylene	0.110	0.0050	"	0.100		110	62.6-134	4.93	12.2	
Surrogate: 1,2-Dichloroethane-d4	0.0374		"	0.0397		94.1	30-150			
Surrogate: Toluene-d8	0.0380		"	0.0400		95.1	30-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	30-150			

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

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

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

Batch 2070321 - EPA 5030 Soil MS

Matrix Spike (2070321-MS1)		Source: R207036-01			Prepared: 07/03/12		Analyzed: 07/04/12			
Benzene	0.0734	0.0050	mg/kg	0.100	ND	73.4	47.2-120			
Toluene	0.0799	0.0050	"	0.100	ND	79.9	47.7-125			
Ethylbenzene	0.0781	0.0050	"	0.100	ND	78.1	34.5-150			
m,p-Xylene	0.185	0.010	"	0.200	0.00492	90.1	30-150			
o-Xylene	0.0945	0.0050	"	0.100	ND	94.5	30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0417		"	0.0397		105	30-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	30-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	30-150			

Matrix Spike (2070321-MS2)		Source: R207036-03			Prepared: 07/03/12		Analyzed: 07/04/12			
Benzene	0.0215	0.0050	mg/kg	0.100	ND	21.5	47.2-120			QM-07
Toluene	0.0283	0.0050	"	0.100	ND	28.3	47.7-125			QM-07
Ethylbenzene	0.0359	0.0050	"	0.100	ND	35.9	34.5-150			
m,p-Xylene	0.120	0.010	"	0.200	ND	59.9	30-150			
o-Xylene	0.0903	0.0050	"	0.100	ND	90.3	30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0397		103	30-150			
Surrogate: Toluene-d8	0.0374		"	0.0400		93.6	30-150			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		105	30-150			

Matrix Spike Dup (2070321-MSD1)		Source: R207036-01			Prepared: 07/03/12		Analyzed: 07/04/12			
Benzene	0.0740	0.0050	mg/kg	0.100	ND	74.0	47.2-120	0.855	15.1	
Toluene	0.0798	0.0050	"	0.100	ND	79.8	47.7-125	0.113	16.8	
Ethylbenzene	0.0782	0.0050	"	0.100	ND	78.2	34.5-150	0.192	10.1	
m,p-Xylene	0.180	0.010	"	0.200	0.00492	87.4	30-150	2.88	17.2	
o-Xylene	0.0928	0.0050	"	0.100	ND	92.8	30-150	1.79	15.2	
Surrogate: 1,2-Dichloroethane-d4	0.0400		"	0.0397		101	30-150			
Surrogate: Toluene-d8	0.0378		"	0.0400		94.6	30-150			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	30-150			

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

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

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

Batch 2070321 - EPA 5030 Soil MS

Matrix Spike Dup (2070321-MSD2)	Source: R207036-03			Prepared: 07/03/12		Analyzed: 07/04/12				
Benzene	0.0441	0.0050	mg/kg	0.100	ND	44.1	47.2-120	68.9	15.1	QM-07
Toluene	0.0465	0.0050	"	0.100	ND	46.5	47.7-125	48.7	16.8	QM-07
Ethylbenzene	0.0349	0.0050	"	0.100	ND	34.9	34.5-150	2.88	10.1	
m,p-Xylene	0.118	0.010	"	0.200	ND	59.0	30-150	1.56	17.2	
o-Xylene	0.0872	0.0050	"	0.100	ND	87.2	30-150	3.52	15.2	
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0397		106	30-150			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	30-150			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0400		102	30-150			

Summit Scientific

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/05/12 02:10

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.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

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

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 06, 2012

Rob Rebel

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: NEP - Herbst B 27-1, 27-7

Enclosed are the results of analyses for samples received by Summit Scientific on 07/05/12 18:22. 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' or 'Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury

President / Laboratory Director



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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS08	R207056-01	Soil	07/05/12 12:00	07/05/12 18:22
SS09	R207056-02	Soil	07/05/12 12:05	07/05/12 18:22

Summit Scientific

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A handwritten signature in black ink, appearing to be 'RM' or similar, with a long horizontal stroke extending to the right.

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

Summit Scientific 820-654

5

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-277-9531 Fax

Page (of)

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Avada, CO 80003

Phone: (303) 433-9788

2014-2015 (cont.)

Sampler Name: D3

Project Manager: Steve Kahn *Rebekah*

E-Mail:

Project No.

Project Name:

Project Number:

Project Number: 0083 12040

[illegible]

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LT Environmental, Inc.
4600 West 60th Avenue
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Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

SS08
R207056-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: 07/05/12 12:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2070516	07/05/12	07/05/12	8015 DRO	

Date Sampled: 07/05/12 12:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/05/12 12:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070515	07/05/12	07/05/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 07/05/12 12:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	30-150		"	"	"	"	
Surrogate: Toluene-d8		95.6 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.4 %	30-150		"	"	"	"	

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

Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

SS09
R207056-02 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **07/05/12 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2070516	07/05/12	07/06/12	8015 DRO	

Date Sampled: **07/05/12 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		101 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/05/12 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	2070515	07/05/12	07/05/12	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/05/12 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane- <i>d</i> 4		103 %	30-150		"	"	"	"	
Surrogate: Toluene- <i>d</i> 8		95.6 %	30-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	30-150		"	"	"	"	

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Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

Total Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2070516 - EPA 3550A

Blank (2070516-BLK1)

Prepared: 07/05/12 Analyzed: 07/06/12

C10-C28 (DRO) ND 50 mg/kg

LCS (2070516-BS1)

Prepared: 07/05/12 Analyzed: 07/06/12

C10-C28 (DRO) 616 50 mg/kg 501 123 79.3-126

LCS Dup (2070516-BSD1)

Prepared: 07/05/12 Analyzed: 07/06/12

C10-C28 (DRO) 580 50 mg/kg 501 116 79.3-126 6.06 11

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Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

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

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

Batch 2070515 - EPA 5030 Soil MS

Blank (2070515-BLK1)

Prepared & Analyzed: 07/05/12

Benzene	ND	0.0050	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	0.0365		"	0.0397	91.9	30-150				
Surrogate: Toluene-d8	0.0382		"	0.0400	95.6	30-150				
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400	96.0	30-150				

LCS (2070515-BS1)

Prepared & Analyzed: 07/05/12

Benzene	0.0915	0.0050	mg/kg	0.100	91.5	58.1-115				
Toluene	0.0951	0.0050	"	0.100	95.1	56.7-123				
Ethylbenzene	0.0994	0.0050	"	0.100	99.4	61.4-138				
m,p-Xylene	0.194	0.010	"	0.200	97.0	63.6-128				
o-Xylene	0.0996	0.0050	"	0.100	99.6	62.6-134				
Surrogate: 1,2-Dichloroethane-d4	0.0366		"	0.0397	92.1	30-150				
Surrogate: Toluene-d8	0.0384		"	0.0400	96.0	30-150				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400	98.6	30-150				

LCS Dup (2070515-BS1)

Prepared & Analyzed: 07/05/12

Benzene	0.0953	0.0050	mg/kg	0.100	95.3	58.1-115	4.08	20		
Toluene	0.0993	0.0050	"	0.100	99.3	56.7-123	4.26	20		
Ethylbenzene	0.103	0.0050	"	0.100	103	61.4-138	3.50	12.2		
m,p-Xylene	0.202	0.010	"	0.200	101	63.6-128	4.18	13.2		
o-Xylene	0.103	0.0050	"	0.100	103	62.6-134	3.32	12.2		
Surrogate: 1,2-Dichloroethane-d4	0.0366		"	0.0397	92.3	30-150				
Surrogate: Toluene-d8	0.0384		"	0.0400	95.9	30-150				
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400	97.6	30-150				

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LT Environmental, Inc.
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Project: NEP - Herbst B 27-1, 27-7

Project Number: 0083-12040
Project Manager: Rob Rebel

Reported:
07/06/12 04:56

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

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

Batch 2070515 - EPA 5030 Soil MS

Matrix Spike (2070515-MS1)		Source: R207056-01			Prepared & Analyzed: 07/05/12					
Benzene	0.0746	0.0050	mg/kg	0.100	ND	74.6	47.2-120			
Toluene	0.0607	0.0050	"	0.100	ND	60.7	47.7-125			
Ethylbenzene	0.0570	0.0050	"	0.100	ND	57.0	34.5-150			
m,p-Xylene	0.150	0.010	"	0.200	ND	75.2	30-150			
o-Xylene	0.0811	0.0050	"	0.100	ND	81.1	30-150			
Surrogate: 1,2-Dichloroethane-d4	0.0401		"	0.0397		101	30-150			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.2	30-150			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.6	30-150			
Matrix Spike Dup (2070515-MSD1)		Source: R207056-01			Prepared: 07/05/12 Analyzed: 07/06/12					
Benzene	0.0754	0.0050	mg/kg	0.100	ND	75.4	47.2-120	1.12	15.1	
Toluene	0.0587	0.0050	"	0.100	ND	58.7	47.7-125	3.42	16.8	
Ethylbenzene	0.0529	0.0050	"	0.100	ND	52.9	34.5-150	7.48	10.1	
m,p-Xylene	0.147	0.010	"	0.200	ND	73.4	30-150	2.50	17.2	
o-Xylene	0.0802	0.0050	"	0.100	ND	80.2	30-150	1.12	15.2	
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0397		104	30-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	30-150			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	30-150			

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