



February 11, 2015

Mr. Jacob Evans
Senior Environmental Specialist
Noble Energy, Inc.
2115 117th Avenue
Greeley, Colorado 80634

RE: **Remediation Activity Summary
Huwa 11-1,2 Tank Battery
Weld County, Colorado
COGCC Tracking #400704492**

Dear Mr. Evans:

LT Environmental, Inc. (LTE), under the direction of Noble Energy, Inc. (Noble), conducted environmental remediation and confirmation soil sampling following the identification of petroleum hydrocarbon impacted soil at the Huwa 11-1,2 Tank Battery (Site). This report describes the remediation work conducted on November 21 through December 1, 2014. The Site is located approximately 0.75 miles west of County Road 47 and 0.38 miles north of County Road 46 in Weld County, Colorado. The legal site description is the northeast quarter of the southwest quarter of Section 11, Township 4 North, Range 65 West, 6th Principal Meridian. The Site Location Map is provided as Figure 1.

Site History and Excavation Scope of Work

During the removal of a water vault, petroleum hydrocarbon impacted soil was discovered at the Site. As a result, under the direction of Noble, LTE personnel were on site to oversee and document excavation activities, direct excavation work, field screen excavated soil, collect confirmation soil samples, and provide health and safety oversight. The contractor operating the excavation equipment was BG Services, LLC of Fort Lupton, Colorado. The excavated soil was field screened for volatile organic compounds using a photo-ionization detector (PID) to determine if further excavation was necessary.

The excavation activity was initiated on November 21, 2014, and completed on December 1, 2014. The excavation was located in the area of the tank battery. The total extent of the excavation was approximately 80 feet north-south by 40 feet east-west to a total depth of 6 feet below ground surface (bgs). The Excavation Site Map is provided as Figure 2.

Excavated soil consisted primarily of sandy clay from ground surface to total depth of the excavation at approximately 6 feet bgs. Petroleum hydrocarbon staining and odor was observed from approximately 1 foot bgs to total depth. Groundwater was encountered in the excavation at approximately 4 feet bgs. Following completion of excavation activities, 1,000 pounds of an activated carbon-based amendment (BOS 200[®]) and 500 pounds of gypsum was applied to the floor of the excavation to aid in the remediation of any residual petroleum hydrocarbon impact in



soil and groundwater. A total of 119 truckloads (approximately 1,190 cubic yards) of soil was removed from the Site and transported to the Waste Management Buffalo Ridge Landfill in Keenesburg, Colorado, and North Weld Landfill in Ault, Colorado, for final disposal.

Confirmation Soil Sampling

On November 21 through December 1, 2014, under the direction of Noble, LTE personnel collected 13 discrete confirmation soil samples from the excavation sidewalls and floor. All confirmation soil samples were collected, placed on ice, then submitted with a completed chain of custody form to Summit Scientific (Summit) of Golden, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), and naphthalene by United States Environmental Protection Agency (EPA) Method 8260B, and TPH as diesel range organics (DRO) by EPA Method 8015.

Excavation Groundwater Sampling

On November 24, 2014, one groundwater grab sample (GW01) was collected from the excavation. The groundwater sample was collected, placed on ice, and delivered with a completed chain of custody form to Summit for analysis of BTEX by EPA Method 8260B.

Excavation Soil Analytical Results

The Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 standards for BTEX, naphthalene, and TPH in soil are 0.17 milligrams per kilogram (mg/kg), 85 mg/kg, 100 mg/kg, 175 mg/kg, 23 mg/kg, and 500 mg/kg, respectively. Excavation soil analytical results indicated soil samples SS01@4' and SS04@4' exceeded the COGCC Table 910-1 standard for benzene at concentrations of 0.88 mg/kg and 0.83 mg/kg, respectively. Soil samples SS01@4', SS04@4', SS08@4', SS09@4', and SS12@4' exceeded the COGCC Table 910-1 standard for TPH at concentrations of 4,900 mg/kg, 1,059 mg/kg, 1,590 mg/kg, 3,100 mg/kg, and 1,480 mg/kg, respectively. All other soil samples representative of the final lateral extent of the excavation were compliant with applicable COGCC Table 910-1 standards. The laboratory soil analytical results are presented on Figure 3 and summarized in Table 1. The laboratory analytical reports are attached.

Excavation Groundwater Analytical Results

The Colorado Department of Public Health and Environment-Water Quality Control Commission has established Regulation 41-The Basic Standards for Ground Water (WQCC Reg 41) for BTEX at 5.0 micrograms per liter ($\mu\text{g/L}$), 560 $\mu\text{g/L}$, 700 $\mu\text{g/L}$, and 1,400 $\mu\text{g/L}$, respectively. Laboratory groundwater analytical results indicated grab sample GW01 exceeded the WQCC Reg 41 standards for benzene and total xylenes at concentrations of 45 $\mu\text{g/L}$ and 2,200 $\mu\text{g/L}$, respectively. Groundwater analytical results are presented on Figure 4 and summarized in Table 2. The laboratory analytical report is attached.



Summary

LTE, under the direction of Noble, conducted oversight of source removal of petroleum hydrocarbon impacted soil at the Site and conducted confirmation soil sampling activities. Per the excavation activities conducted and confirmation soil sample laboratory analytical results, the lateral extent of impacted soil above the groundwater saturated zone was removed and a groundwater amendment was applied to the saturated interval. Approximately 1,190 cubic yards of soil was removed from the excavation and transported to the Waste Management Buffalo Ridge Landfill in Keenesburg, Colorado, and the North Weld Landfill in Ault, Colorado, for final disposal. Groundwater was encountered in the excavation at approximately 4 feet bgs. Groundwater analytical results from the sample collected from the open excavation exceeded the WQCC Reg 41 standards for benzene and total xylenes; therefore, a groundwater monitoring program will be implemented once monitoring wells are in place. Monitoring wells will be monitored on a quarterly basis until laboratory analytical results reflect four consecutive quarters in compliance with applicable WQCC Reg 41 standards. Further remediation efforts will be discussed in future correspondence.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Chris Roy
Project Manager

Steve Kahn, P.E.
Principal

Attachments

Figure 1	Site Location Map
Figure 2	Excavation Site Map
Figure 3	Excavation Soil Analytical Results
Figure 4	Excavation Groundwater Analytical Results
Table 1	Excavation Soil Analytical Results
Table 2	Excavation Groundwater Analytical Results
Attachment	Laboratory Analytical Reports

FIGURES



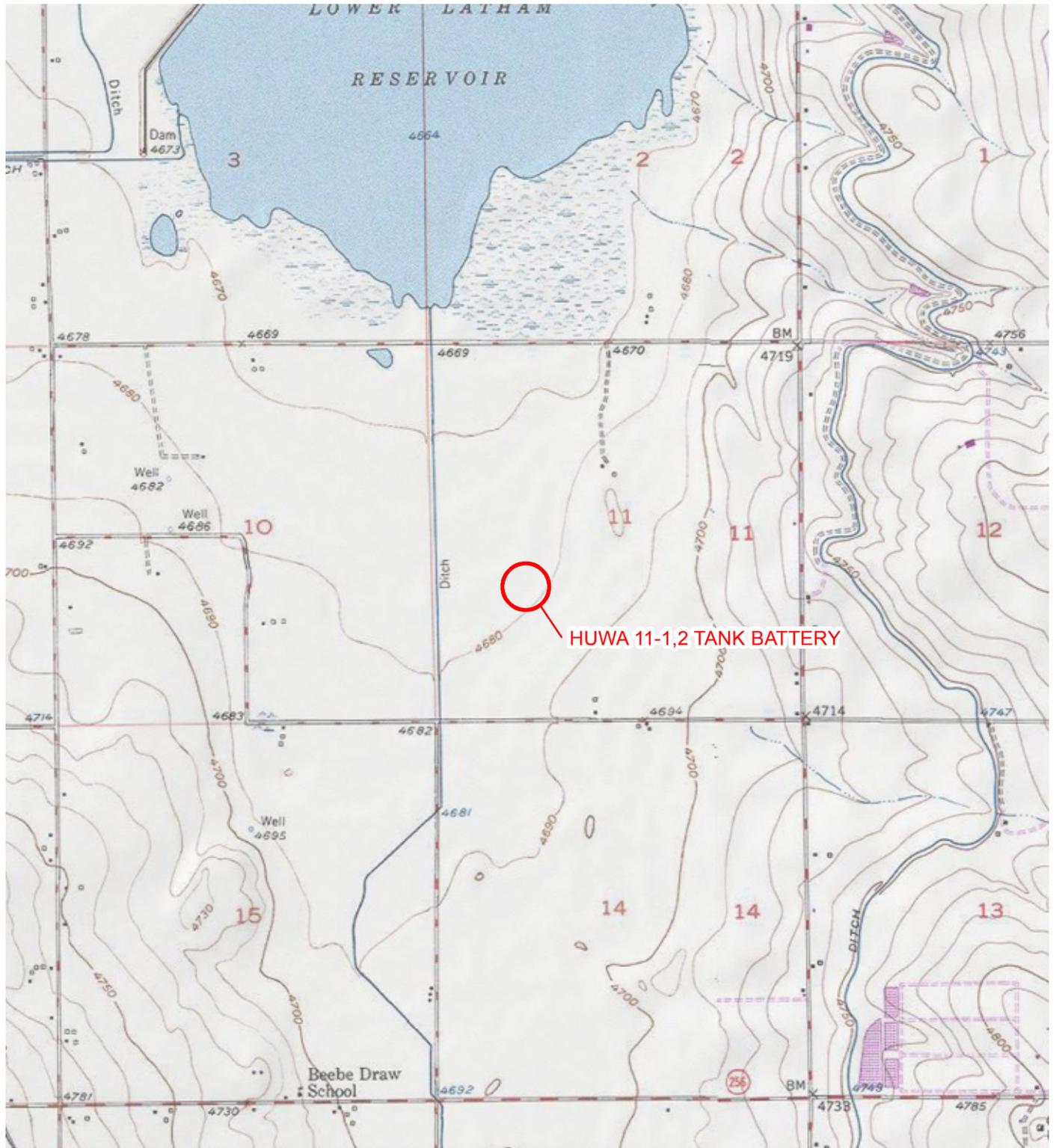


IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION

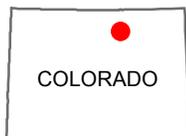
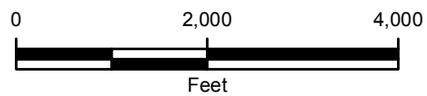


FIGURE 1
SITE LOCATION MAP
HUWA 11-1,2 TANK BATTERY
WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





IMAGE COURTESY OF ESRI

LEGEND

- EXCAVATION SOIL SAMPLE
- ▭ EXCAVATION EXTENT

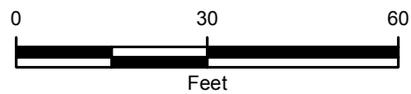
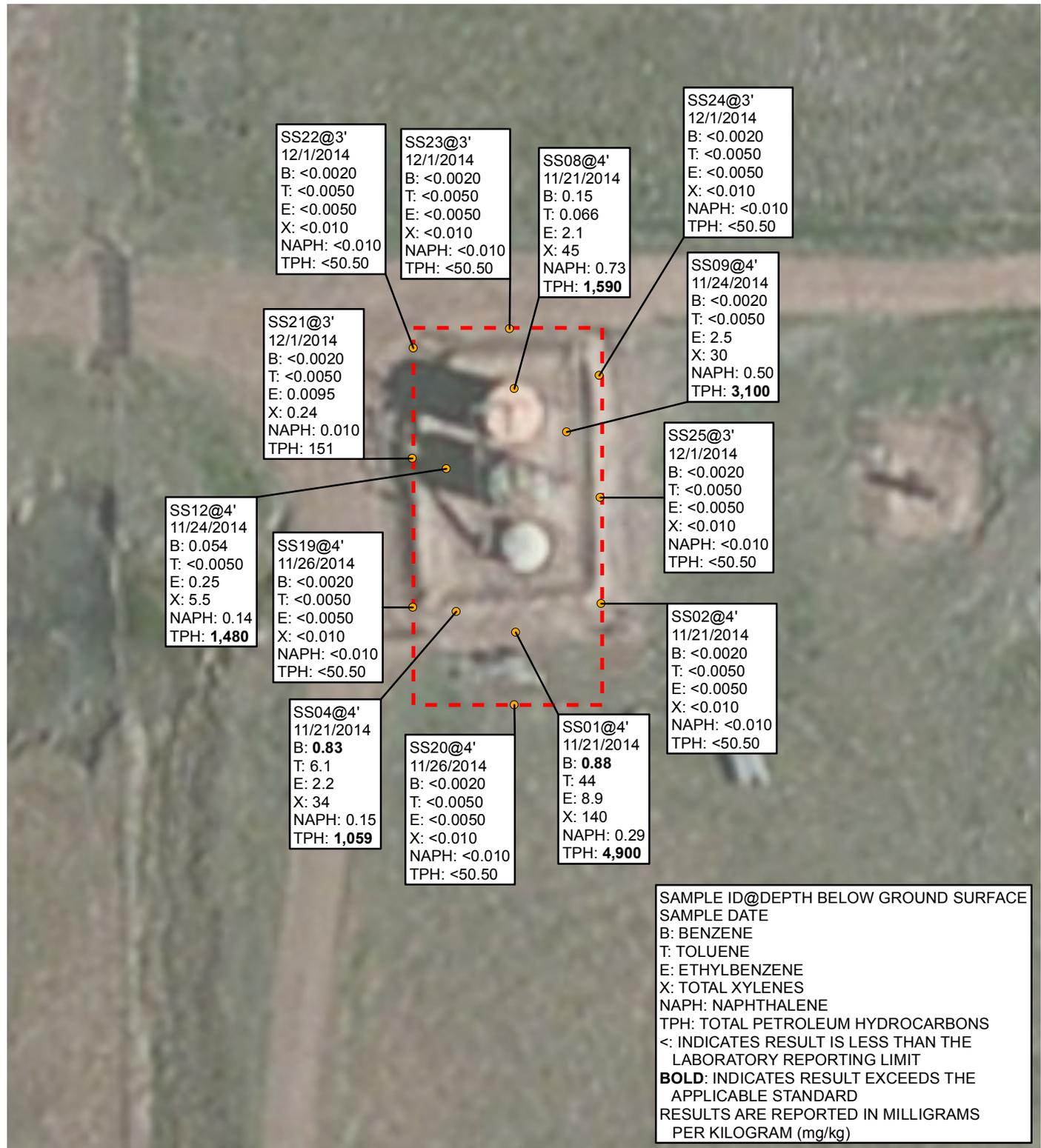


FIGURE 2
EXCAVATION SITE MAP
HUWA 11-1,2 TANK BATTERY
WELD COUNTY, COLORADO



NOBLE ENERGY, INC.



SAMPLE ID@DEPTH BELOW GROUND SURFACE
 SAMPLE DATE
 B: BENZENE
 T: TOLUENE
 E: ETHYLBENZENE
 X: TOTAL XYLENES
 NAPH: NAPHTHALENE
 TPH: TOTAL PETROLEUM HYDROCARBONS
 <: INDICATES RESULT IS LESS THAN THE LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE STANDARD
 RESULTS ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

LEGEND

- EXCAVATION SOIL SAMPLE
- EXCAVATION EXTENT

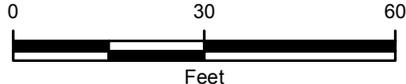
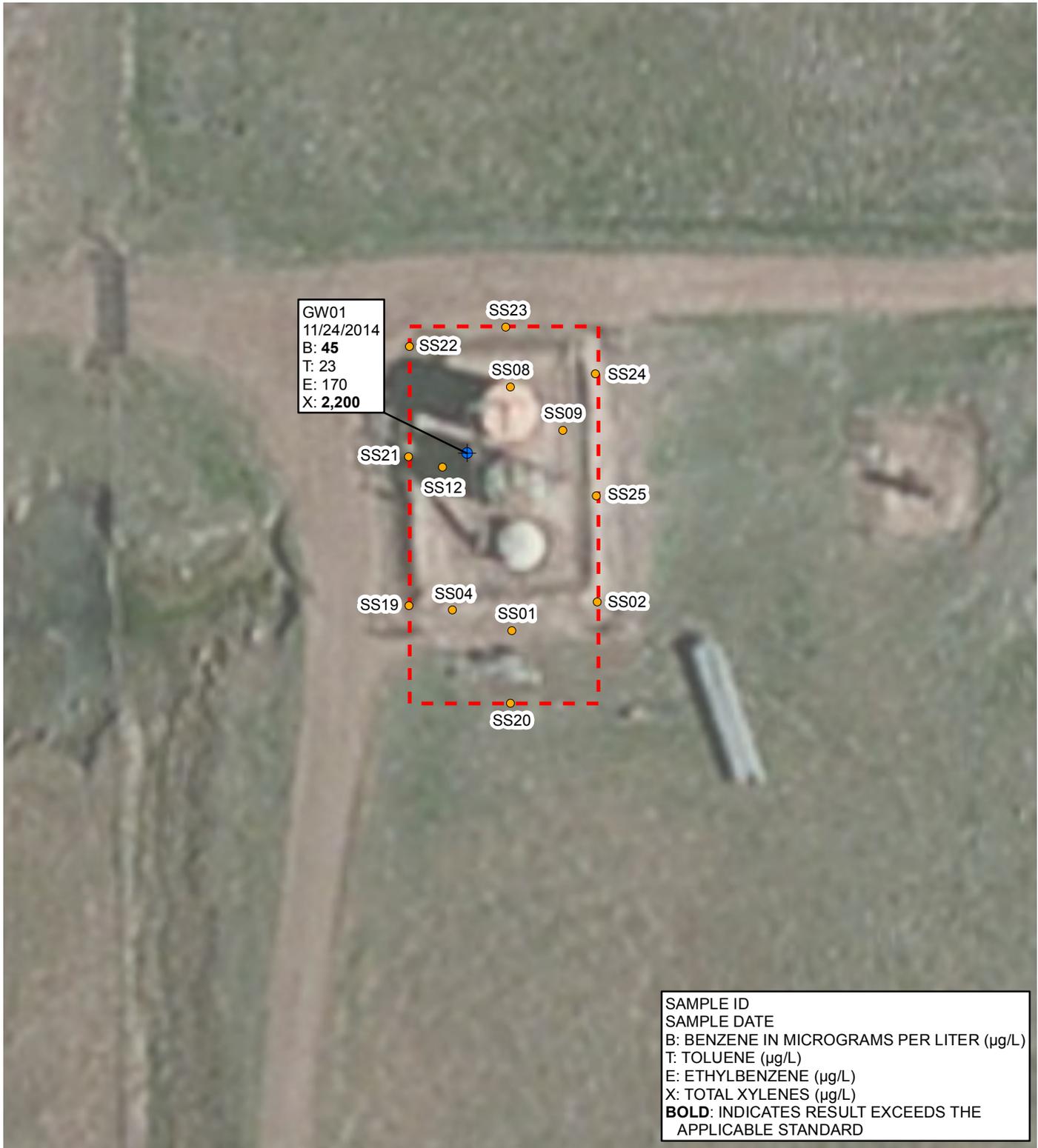


IMAGE COURTESY OF ESRI

FIGURE 3
EXCAVATION SOIL ANALYTICAL RESULTS
 HUWA 11-1,2 TANK BATTERY
 WELD COUNTY, COLORADO

NOBLE ENERGY, INC.





SAMPLE ID
 SAMPLE DATE
 B: BENZENE IN MICROGRAMS PER LITER ($\mu\text{g/L}$)
 T: TOLUENE ($\mu\text{g/L}$)
 E: ETHYLBENZENE ($\mu\text{g/L}$)
 X: TOTAL XYLENES ($\mu\text{g/L}$)
BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE STANDARD

IMAGE COURTESY OF ESRI

LEGEND

- EXCAVATION SOIL SAMPLE
- ⊕ EXCAVATION GROUNDWATER SAMPLE
- EXCAVATION EXTENT

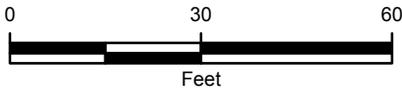


FIGURE 4
EXCAVATION GROUNDWATER ANALYTICAL RESULTS
HUWA 11-1,2 TANK BATTERY
WELD COUNTY, COLORADO



NOBLE ENERGY, INC.

TABLES



TABLE 1

EXCAVATION SOIL ANALYTICAL RESULTS
 HUWA 11-1,2 TANK BATTERY
 WELD COUNTY, COLORADO
 NOBLE ENERGY, INC.

Soil Sample	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
SS01@4'	11/21/2014	0.88	44	8.9	140	0.29	3,100	1,800	4,900
SS02@4'	11/21/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS04@4'	11/21/2014	0.83	6.1	2.2	34	0.15	980	79	1,059
SS08@4'	11/21/2014	0.15	0.066	2.1	45	0.73	1,300	290	1,590
SS09@4'	11/24/2014	<0.0020	<0.0050	2.5	30	0.50	1,900	1,200	3,100
SS12@4'	11/24/2014	0.054	<0.0050	0.25	5.5	0.14	380	1,100	1,480
SS19@4'	11/26/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS20@4'	11/26/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS21@3'	12/1/2014	<0.0020	<0.0050	0.0095	0.24	0.010	11	140	151
SS22@3'	12/1/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS23@3'	12/1/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS24@3'	12/1/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
SS25@3'	12/1/2014	<0.0020	<0.0050	<0.0050	<0.010	<0.010	<0.50	<50	<50.50
COGCC Table 910-1 Standard		0.17	85	100	175	23	--	--	500

NOTES:

COGCC - Colorado Oil and Gas Conservation Commission

DRO - diesel range organics analyzed by EPA Method 8015

GRO - gasoline range organics analyzed by EPA Method 8260B

mg/kg - milligrams per kilogram

TPH - total petroleum hydrocarbons is the sum of GRO and DRO

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

-- - not applicable

BOLD indicates result exceeds the applicable standard

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

TABLE 2

**EXCAVATION GROUNDWATER ANALYTICAL RESULTS
HUWA 11-1,2 TANK BATTERY
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

Soil Sample	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
GW01	11/24/2014	45	23	170	2,200
CDPHE WQCC Reg 41 Standard		5.0	560	700	1,400

NOTES:

µg/L - micrograms per liter

BOLD indicates result exceeds the applicable standard

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

CDPHE WQCC Reg 41 - Colorado Department of Public Health and Environment-Water Quality

Control Commission Regulation 41-The Basic Standards for Ground Water

ATTACHMENT
LABORATORY ANALYTICAL REPORTS



Summit Scientific

741 Corporate Circle – Suite J ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

November 24, 2014

Chris Roy
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: Huwa 11-1, 2

Enclosed are the results of analyses for samples received by Summit Scientific on 11/21/14 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 read "Joseph J Egry IV". The signature is fluid and cursive, with a small "IV" superscripted at the end.

Joseph J Egry IV For Paul Shrewsbury
President

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@4'	1411161-01	Soil	11/21/14 14:10	11/21/14 17:00
SS02@4'	1411161-02	Soil	11/21/14 14:20	11/21/14 17:00
SS04@4'	1411161-03	Soil	11/21/14 14:30	11/21/14 17:00
SS08@4'	1411161-04	Soil	11/21/14 16:00	11/21/14 17:00

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

Summit Scientific 1411161

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: LTE Project Manager: Chris Roy
Address: _____ E-Mail: croyle@ten.com
City/State/Zip: _____
Phone: 303-433-7768 Fax: _____ Project Name: Huwa 11-1, 2
Sampler Name: Table Project Number: _____

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTX	PAH	NO3	NO2	Ammonia	Other	
1	SS0104	11/21/14	1410	1						X				X	X	X			
2	SS0204		1420	1						X				X	X	X			
3	SS0304		1430	1						X				X	X	X			
4	SS0404		1440	1						X				X	X	X			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>[Signature]</u>	Date/Time: <u>11/21/14 1700</u>	Received by: <u>[Signature]</u>	Date/Time: <u>11/21/14 1700</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	72 hours <input type="checkbox"/>
				24 hours <input type="checkbox"/>	Standard <input type="checkbox"/>
				48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: <u>10°C</u>	
				Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

www.s2scientific.com

Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

Sample Receipt Checklist

S2 Work Order: 1411161

Client: LEE Client Project ID: Huwa 11-1, 2

Shipped Via: Pick up (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #:

Matrix (check all that apply): Air Soil/Solid Water Other: (Describe)

Cooler ID	<u>1</u>			
Temp (°C)	<u>10.0</u>			

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?	<input checked="" type="checkbox"/>			<u>Same day TAT</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Joseph J Egrv IV
Custodian Printed Name

Joseph J Egrv IV
Signature or Initials of Custodian

11/22/14
Date/Time

Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

Joseph J Egrv IV



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

SS01@4'
1411161-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1800	50	mg/kg	1	1411217	11/22/14	11/23/14 01:20	8015M	

Date Sampled: **11/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>	<i>119 %</i>	<i>30-150</i>			"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.29	0.010	mg/kg	1	1411216	11/22/14	11/22/14 23:05	EPA 8260B	
Benzene	0.88	0.20	"	100	"	"	11/23/14 19:21	"	
Toluene	44	0.50	"	"	"	"	"	"	
Ethylbenzene	8.9	0.50	"	"	"	"	"	"	
Xylenes (total)	140	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3100	50	"	"	"	"	"	"	

Date Sampled: **11/21/14 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>94.4 %</i>	<i>23-173</i>			"	"	<i>11/22/14 23:05</i>	"	
<i>Surrogate: Toluene-d8</i>	<i>116 %</i>	<i>20-170</i>			"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>131 %</i>	<i>21-167</i>			"	"	"	"	

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

SS02@4'
1411161-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 11/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1411217	11/22/14	11/23/14 01:46	8015M	

Date Sampled: 11/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	99.7 %	30-150			"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1411216	11/22/14	11/23/14 19:45	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 11/21/14 14:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	107 %	23-173			"	"	"	"	
Surrogate: Toluene-d8	91.9 %	20-170			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %	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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

SS04@4'
1411161-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	79	50	mg/kg	1	1411217	11/22/14	11/23/14 02:13	8015M	

Date Sampled: **11/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>	98.5 %	30-150			"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.15	0.010	mg/kg	1	1411216	11/22/14	11/22/14 23:53	EPA 8260B	
Benzene	0.83	0.20	"	100	"	"	11/23/14 20:09	"	
Toluene	6.1	0.50	"	"	"	"	"	"	
Ethylbenzene	2.2	0.50	"	"	"	"	"	"	
Xylenes (total)	34	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	980	50	"	"	"	"	"	"	

Date Sampled: **11/21/14 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	90.9 %	23-173			"	"	11/22/14 23:53	"	
<i>Surrogate: Toluene-d8</i>	109 %	20-170			"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	109 %	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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

SS08@4'
1411161-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/21/14 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	290	50	mg/kg	1	1411217	11/22/14	11/23/14 02:39	8015M	

Date Sampled: **11/21/14 16:00**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/21/14 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.73	0.010	mg/kg	1	1411216	11/22/14	11/23/14 00:17	EPA 8260B	
Benzene	0.15	0.0020	"	"	"	"	"	"	
Toluene	0.066	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.1	0.50	"	100	"	"	"	"	
Xylenes (total)	45	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1300	50	"	"	"	"	"	"	

Date Sampled: **11/21/14 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>92.0 %</i>	<i>23-173</i>			"	"	"	"	
<i>Surrogate: Toluene-d8</i>	<i>119 %</i>	<i>20-170</i>			"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>112 %</i>	<i>21-167</i>			"	"	"	"	

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

Extractable 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 1411217 - EPA 3550A

Blank (1411217-BLK1)

Prepared & Analyzed: 11/22/14

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.2		105	30-150			

LCS (1411217-BS1)

Prepared & Analyzed: 11/22/14

C10-C28 (DRO)	481	50	mg/kg	501		96.1	73-134			
Surrogate: <i>o</i> -Terphenyl	12.2		"	12.2		100	30-150			

Matrix Spike (1411217-MS1)

Source: 1411161-01

Prepared: 11/22/14 Analyzed: 11/23/14

C10-C28 (DRO)	2540	50	mg/kg	501	1820	144	50-148			
Surrogate: <i>o</i> -Terphenyl	16.9		"	12.2		138	30-150			

Matrix Spike Dup (1411217-MSD1)

Source: 1411161-01

Prepared: 11/22/14 Analyzed: 11/23/14

C10-C28 (DRO)	2520	50	mg/kg	501	1820	139	50-148	0.862	13	
Surrogate: <i>o</i> -Terphenyl	15.1		"	12.2		124	30-150			

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

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		

Batch 1411216 - EPA 5030 Soil MS

Blank (1411216-BLK1)

Prepared & Analyzed: 11/22/14

Naphthalene	ND	0.010	mg/kg							
Benzene	ND	0.0020	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0388</i>		<i>"</i>	<i>0.0396</i>	<i>97.9</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>	<i>97.1</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>	<i>101</i>	<i>21-167</i>				

LCS (1411216-BS1)

Prepared & Analyzed: 11/22/14

Naphthalene	ND	0.010	mg/kg			66-138
Benzene	0.104	0.0020	"	0.100	104	58-130
Toluene	0.103	0.0050	"	0.100	103	61-134
Ethylbenzene	0.111	0.0050	"	0.0992	111	74-139
m,p-Xylene	0.211	0.010	"	0.200	106	73-137
o-Xylene	0.103	0.0050	"	0.0984	105	73-141
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0352</i>		<i>"</i>	<i>0.0396</i>	<i>88.9</i>	<i>23-173</i>
<i>Surrogate: Toluene-d8</i>	<i>0.0395</i>		<i>"</i>	<i>0.0400</i>	<i>98.8</i>	<i>20-170</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>	<i>100</i>	<i>21-167</i>

Matrix Spike (1411216-MS1)

Source: 1411162-01

Prepared: 11/22/14 Analyzed: 11/23/14

Naphthalene	ND	0.010	mg/kg		ND	10-158
Benzene	0.103	0.0020	"	0.100	ND	103
Toluene	0.102	0.0050	"	0.100	ND	102
Ethylbenzene	0.111	0.0050	"	0.0992	ND	112
m,p-Xylene	0.211	0.010	"	0.200	ND	106
o-Xylene	0.106	0.0050	"	0.0984	ND	108
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0382</i>		<i>"</i>	<i>0.0396</i>	<i>96.5</i>	<i>23-173</i>
<i>Surrogate: Toluene-d8</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>	<i>96.8</i>	<i>20-170</i>
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0395</i>		<i>"</i>	<i>0.0400</i>	<i>98.8</i>	<i>21-167</i>

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

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 1411216 - EPA 5030 Soil MS

Matrix Spike Dup (1411216-MSD1)	Source: 1411162-01			Prepared: 11/22/14	Analyzed: 11/23/14				
Naphthalene	ND	0.010	mg/kg	ND	10-158				42
Benzene	0.0994	0.0020	"	0.100	ND	99.4	30-131	3.64	34
Toluene	0.101	0.0050	"	0.100	ND	101	30-134	1.18	30
Ethylbenzene	0.111	0.0050	"	0.0992	ND	112	22-153	0.243	24
m,p-Xylene	0.209	0.010	"	0.200	ND	105	10-159	0.971	68
o-Xylene	0.103	0.0050	"	0.0984	ND	105	31-151	2.79	38
Surrogate: 1,2-Dichloroethane-d4	0.0364		"	0.0396		91.9	23-173		
Surrogate: Toluene-d8	0.0379		"	0.0400		94.6	20-170		
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	21-167		

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: [none]
Project Manager: Chris Roy

Reported:
11/24/14 12:18

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.

Joseph J Egry IV For Paul Shrewsbury, President

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
1411216-BS1	8260B GBTEXN TXYL	Naphthalene	No spike level
1411216-MSD1	8260B GBTEXN TXYL	Naphthalene	No spike level
1411216-MS1	8260B GBTEXN TXYL	Naphthalene	No spike level
			VERSION 6.12:2015
			Default Report (not modified)

Summit Scientific

741 Corporate Circle – Suite J ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

January 06, 2015

Chris Roy
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: Huwa 11-1, 2

Enclosed are the results of analyses for samples received by Summit Scientific on 11/24/14 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV For Paul Shrewsbury
President

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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS09@4'	1411176-01	Soil	11/24/14 12:00	11/24/14 17:00
SS12@4'	1411176-02	Soil	11/24/14 14:00	11/24/14 17:00
GW01	1411176-03	Water	11/24/14 14:00	11/24/14 17:00

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

Summit Scientific 1411176

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: LT Environmental Project Manager: Chris Roy
Address: 4600 West 60th Avenue E-Mail: Chris Roy, Steve Kahn, Rob Rebel, Chuck Greeson
City/State/Zip: Arvada, CO 80003 Fawn Spangler, Todd Cullum, Justin Jepperson, Jacob Evans
Phone: 303-433-9788 Fax: 303-374-5933 Project Name: Huwa 11-1, 2
Sampler Name: D. Spangler Project Number: 0083-13062-008314069

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	GRO	Naphthalene	DRO	pH, EC		SAR
1	SS12@4'	11/24/14	1700	1						X			X	X	X	X			
2	SS12@4'		1400	1						X			X	X	X	X			
3	GW01		1400	3					X				X						
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Relinquished by: [Signature]		Date/Time: 11/24/14 1700		Received by: [Signature]		Date/Time: 11/24/14 1700		Turn Around Time (Check)		Same Day <input checked="" type="checkbox"/>		72 hours <input type="checkbox"/>		Standard <input type="checkbox"/>		Notes:		Invoice To:	
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours <input type="checkbox"/>		Sample Integrity:		Temperature Upon Receipt: 6°C		Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Fawn Spangler		Jacob Evans	
Relinquished by:		Date/Time:		Received by:		Date/Time:										Todd Cullum		LTE	

www.s2scientific.com

Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

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.

Joseph J Egly IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

SS09@4'
1411176-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1200	50	mg/kg	1	1411227	11/24/14	11/24/14 19:13	8015M	

Date Sampled: **11/24/14 12:00**

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.50	0.010	mg/kg	1	1411218	11/24/14	11/24/14 21:38	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.5	0.50	"	100	"	"	11/24/14 19:12	"	
Xylenes (total)	30	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1900	50	"	"	"	"	"	"	

Date Sampled: **11/24/14 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>93.1 %</i>	<i>23-173</i>			"	"	<i>11/24/14 21:38</i>	"	
<i>Surrogate: Toluene-d8</i>	<i>88.3 %</i>	<i>20-170</i>			"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>112 %</i>	<i>21-167</i>			"	"	"	"	

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

SS12@4'
1411176-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/24/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1100	50	mg/kg	1	1411227	11/24/14	11/24/14 19:39	8015M	

Date Sampled: **11/24/14 14:00**

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: **11/24/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.14	0.010	mg/kg	1	1411218	11/24/14	11/24/14 21:13	EPA 8260B	
Benzene	0.054	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.25	0.0050	"	"	"	"	"	"	
Xylenes (total)	5.5	1.0	"	100	"	"	11/24/14 19:36	"	
Gasoline Range Hydrocarbons	380	50	"	"	"	"	"	"	

Date Sampled: **11/24/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	110 %	23-173			"	"	11/24/14 21:13	"	
Surrogate: Toluene-d8	85.1 %	20-170			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

GW01
1411176-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/24/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	45	1.0	ug/l	1	1411225	11/24/14	11/24/14 19:40	EPA 8260B	
Toluene	23	1.0	"	"	"	"	"	"	
Ethylbenzene	170	1.0	"	"	"	"	"	"	
Xylenes (total)	2200	100	"	100	"	"	11/24/14 18:48	"	

Date Sampled: **11/24/14 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	92.3 %	37-154			"	"	11/24/14 19:40	"	
Surrogate: Toluene-d8	112 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	45-146			"	"	"	"	

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.

Joseph J Egrý IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

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 1411227 - EPA 3550A

Blank (1411227-BLK1)

Prepared & Analyzed: 11/24/14

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.2		105	30-150			

LCS (1411227-BS1)

Prepared & Analyzed: 11/24/14

C10-C28 (DRO)	458	50	mg/kg	501		91.4	73-134			
Surrogate: <i>o</i> -Terphenyl	12.6		"	12.2		104	30-150			

Matrix Spike (1411227-MS1)

Source: 1411171-01

Prepared & Analyzed: 11/24/14

C10-C28 (DRO)	484	50	mg/kg	488		99.1	50-148			
Surrogate: <i>o</i> -Terphenyl	12.8		"	11.9		108	30-150			

Matrix Spike Dup (1411227-MSD1)

Source: 1411171-01

Prepared & Analyzed: 11/24/14

C10-C28 (DRO)	441	50	mg/kg	464		95.1	50-148	9.25	13	
Surrogate: <i>o</i> -Terphenyl	11.5		"	11.3		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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

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		

Batch 1411218 - EPA 5030 Soil MS

Blank (1411218-BLK1)

Prepared & Analyzed: 11/24/14

Naphthalene	ND	0.010	mg/kg						
Benzene	ND	0.0020	"						
Toluene	ND	0.0050	"						
Ethylbenzene	ND	0.0050	"						
Xylenes (total)	ND	0.010	"						
Gasoline Range Hydrocarbons	ND	0.50	"						
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0396	100	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400	100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400	97.4	21-167			

LCS (1411218-BS1)

Prepared & Analyzed: 11/24/14

Naphthalene	0.149	0.010	mg/kg	0.150	99.5	66-138			
Benzene	0.138	0.0020	"	0.150	92.2	58-130			
Toluene	0.147	0.0050	"	0.150	98.1	61-134			
Ethylbenzene	0.147	0.0050	"	0.150	98.3	74-139			
m,p-Xylene	0.344	0.010	"	0.300	115	73-137			
o-Xylene	0.170	0.0050	"	0.150	113	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0396	89.4	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400	100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0422		"	0.0400	106	21-167			

Matrix Spike (1411218-MS1)

Source: 1411155-01

Prepared & Analyzed: 11/24/14

Naphthalene	0.181	0.010	mg/kg	0.150	0.00434	117	10-158		
Benzene	0.159	0.0020	"	0.150	ND	106	30-131		
Toluene	0.152	0.0050	"	0.150	ND	101	30-134		
Ethylbenzene	0.161	0.0050	"	0.150	ND	107	22-153		
m,p-Xylene	0.318	0.010	"	0.300	0.00221	105	10-159		
o-Xylene	0.159	0.0050	"	0.150	0.00140	105	31-151		
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0396		90.8	23-173		
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170		
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

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		

Batch 1411218 - EPA 5030 Soil MS

Matrix Spike Dup (1411218-MSD1)	Source: 1411155-01			Prepared & Analyzed: 11/24/14						
Naphthalene	0.205	0.010	mg/kg	0.150	0.00434	134	10-158	12.6	42	
Benzene	0.163	0.0020	"	0.150	ND	109	30-131	2.68	34	
Toluene	0.160	0.0050	"	0.150	ND	107	30-134	5.36	30	
Ethylbenzene	0.170	0.0050	"	0.150	ND	114	22-153	5.73	24	
m,p-Xylene	0.335	0.010	"	0.300	0.00221	111	10-159	5.15	68	
o-Xylene	0.168	0.0050	"	0.150	0.00140	111	31-151	5.78	38	
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0396		95.5	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	21-167			

Batch 1411225 - EPA 5030 Water MS

Blank (1411225-BLK1)	Prepared & Analyzed: 11/24/14								
Benzene	ND	1.0	ug/l						
Toluene	ND	1.0	"						
Ethylbenzene	ND	1.0	"						
Xylenes (total)	ND	1.0	"						
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.2		93.6	37-154		
Surrogate: Toluene-d8	13.0		"	13.3		97.7	45-149		
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		100	45-146		
LCS (1411225-BS1)	Prepared & Analyzed: 11/24/14								
Benzene	33.9	1.0	ug/l	33.3		102	51-132		
Toluene	33.8	1.0	"	33.3		101	51-138		
Ethylbenzene	35.9	1.0	"	33.1		109	58-146		
m,p-Xylene	68.4	2.0	"	66.5		103	57-144		
o-Xylene	33.6	1.0	"	32.8		103	53-146		
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.2		94.2	37-154		
Surrogate: Toluene-d8	13.2		"	13.3		99.1	45-149		
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146		

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

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		

Batch 1411225 - EPA 5030 Water MS

Matrix Spike (1411225-MS1)	Source: 1411170-01			Prepared & Analyzed: 11/24/14						
Benzene	33.8	1.0	ug/l	33.3	ND	101	34-141			
Toluene	34.3	1.0	"	33.3	ND	103	27-151			
Ethylbenzene	36.9	1.0	"	33.1	ND	111	29-160			
m,p-Xylene	70.2	2.0	"	66.5	ND	105	20-166			
o-Xylene	34.6	1.0	"	32.8	ND	106	33-159			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.4</i>		<i>"</i>	<i>13.2</i>		<i>93.9</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>12.8</i>		<i>"</i>	<i>13.3</i>		<i>95.9</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.3</i>		<i>"</i>	<i>13.3</i>		<i>99.5</i>	<i>45-146</i>			

Matrix Spike Dup (1411225-MSD1)	Source: 1411170-01			Prepared & Analyzed: 11/24/14						
Benzene	34.3	1.0	ug/l	33.3	ND	103	34-141	1.59	32	
Toluene	34.9	1.0	"	33.3	ND	105	27-151	1.79	25	
Ethylbenzene	36.4	1.0	"	33.1	ND	110	29-160	1.37	50	
m,p-Xylene	69.7	2.0	"	66.5	ND	105	20-166	0.715	36	
o-Xylene	34.1	1.0	"	32.8	ND	104	33-159	1.63	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>13.0</i>		<i>"</i>	<i>13.2</i>		<i>98.6</i>	<i>37-154</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.4</i>		<i>"</i>	<i>13.3</i>		<i>100</i>	<i>45-149</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.2</i>		<i>"</i>	<i>13.3</i>		<i>99.4</i>	<i>45-146</i>			

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.

Joseph J Egry IV For Paul Shrewsbury, President



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

Project: Huwa 11-1, 2
Project Number: 008314069
Project Manager: Chris Roy

Reported:
01/06/15 12:31

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.

Joseph J Egry IV For Paul Shrewsbury, President

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

November 30, 2014

Chris Roy
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: Huwa 11-1, 2

Enclosed are the results of analyses for samples received by Summit Scientific on 11/26/14 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



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

Project: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS19@4'	1411189-01	Soil	11/26/14 09:30	11/26/14 17:15
SS20@4'	1411189-02	Soil	11/26/14 11:00	11/26/14 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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

Summit Scientific 1411189

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: LT Environmental, Inc. Project Manager: Chris Roy
Address: 4600 West 60th Ave E-Mail: Noble Group
City/State/Zip: Arvada, CO 80003
Phone: 303-433-9788 Fax: 303-433-1432 Project Name: Huwa 11-1,2
Sampler Name: D Hester Project Number: 008314069

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	DTEX	CRD DRD	Depth	
1	SS19@4'	11/26/14	0930	1						X			X	X	X	
2	SS20@4'	11/26/14	1100	1						X			X	X	X	
3																
4																
5																
6																
7																
8																
9																
10																
Relinquished by: <u>DH</u>		Date/Time: <u>11/26/14 1600</u>	Received by: <u>MD</u>		Date/Time: <u>11/26/14 1715</u>	Turn Around Time (Check)		Same Day <u>X</u> 72 hours <u>—</u>		24 hours <u>—</u> Standard <u>—</u>		48 hours <u>—</u>		Sample Integrity:		Notes: <u>Sam Monday</u> <u>Dec 1, 2014</u>
Relinquished by:		Date/Time:	Received by:		Date/Time:	Temperature Upon Receipt: <u>3°C</u>		Intact: <u>(Yes)</u> No								
Relinquished by:		Date/Time:	Received by:		Date/Time:											

www.s2scientific.com



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

Project: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

SS19@4'
1411189-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 11/26/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1411254	11/28/14	11/29/14	8015M	

Date Sampled: 11/26/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		96.0 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/26/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1411253	11/28/14	11/29/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 11/26/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

SS20@4'
1411189-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 11/26/14 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1411254	11/28/14	11/29/14	8015M	

Date Sampled: 11/26/14 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		97.9 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/26/14 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1411253	11/28/14	11/29/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 11/26/14 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1411254 - EPA 3550A

Blank (1411254-BLK1)

Prepared & Analyzed: 11/28/14

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	12.9		"	12.2		106	30-150				

LCS (1411254-BS1)

Prepared & Analyzed: 11/28/14

C10-C28 (DRO)	504	50	mg/kg	501		101	73-134				
<i>Surrogate: o-Terphenyl</i>	12.5		"	12.2		102	30-150				

Matrix Spike (1411254-MS1)

Source: 1411188-01

Prepared & Analyzed: 11/28/14

C10-C28 (DRO)	462	50	mg/kg	453	16.5	98.4	50-148				
<i>Surrogate: o-Terphenyl</i>	11.0		"	11.0		100	30-150				

Matrix Spike Dup (1411254-MSD1)

Source: 1411188-01

Prepared & Analyzed: 11/28/14

C10-C28 (DRO)	490	50	mg/kg	454	16.5	104	50-148	5.90		13	
<i>Surrogate: o-Terphenyl</i>	11.7		"	11.1		106	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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

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 1411253 - EPA 5030 Soil MS

Blank (1411253-BLK1)

Prepared: 11/28/14 Analyzed: 11/29/14

Naphthalene	ND	0.010	mg/kg							
Benzene	ND	0.0020	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0422</i>		<i>"</i>	<i>0.0396</i>		<i>107</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.4</i>	<i>21-167</i>			

LCS (1411253-BS1)

Prepared: 11/28/14 Analyzed: 11/29/14

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0906	0.0020	"	0.100		90.6	58-130			
Toluene	0.0871	0.0050	"	0.100		87.1	61-134			
Ethylbenzene	0.0936	0.0050	"	0.0992		94.3	74-139			
m,p-Xylene	0.181	0.010	"	0.200		90.8	73-137			
o-Xylene	0.0946	0.0050	"	0.0984		96.2	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0429</i>		<i>"</i>	<i>0.0396</i>		<i>108</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0396</i>		<i>"</i>	<i>0.0400</i>		<i>99.1</i>	<i>21-167</i>			

Matrix Spike (1411253-MS1)

Source: 1411188-01

Prepared: 11/28/14 Analyzed: 11/29/14

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0843	0.0020	"	0.0919	ND	91.8	30-131			
Toluene	0.0817	0.0050	"	0.0919	ND	88.9	30-134			
Ethylbenzene	0.0893	0.0050	"	0.0912	ND	98.0	22-153			
m,p-Xylene	0.173	0.010	"	0.183	ND	94.4	10-159			
o-Xylene	0.0909	0.0050	"	0.0904	ND	101	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0398</i>		<i>"</i>	<i>0.0364</i>		<i>109</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0366</i>		<i>"</i>	<i>0.0368</i>		<i>99.7</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0363</i>		<i>"</i>	<i>0.0368</i>		<i>98.8</i>	<i>21-167</i>			

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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

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 1411253 - EPA 5030 Soil MS

Matrix Spike Dup (1411253-MSD1)	Source: 1411188-01			Prepared: 11/28/14	Analyzed: 11/29/14					
Naphthalene	ND	0.010	mg/kg	ND	ND	10-158				42
Benzene	0.0850	0.0020	"	0.0916	ND	92.8	30-131	0.803		34
Toluene	0.0821	0.0050	"	0.0916	ND	89.6	30-134	0.440		30
Ethylbenzene	0.0905	0.0050	"	0.0908	ND	99.7	22-153	1.35		24
m,p-Xylene	0.175	0.010	"	0.183	ND	95.5	10-159	0.821		68
o-Xylene	0.0927	0.0050	"	0.0901	ND	103	31-151	1.88		38
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0398</i>		<i>"</i>	<i>0.0363</i>		<i>110</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0362</i>		<i>"</i>	<i>0.0366</i>		<i>98.8</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0365</i>		<i>"</i>	<i>0.0366</i>		<i>99.7</i>	<i>21-167</i>			

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: Huwa 11-1, 2

Project Number: 008314069
Project Manager: Chris Roy

Reported:
11/30/14 15:53

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

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 02, 2014

Chris Roy
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: Huwa 11-1, 2

Enclosed are the results of analyses for samples received by Summit Scientific on 12/01/14 16:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS21@3'	1412002-01	Soil	12/01/14 09:30	12/01/14 16:10
SS22@3'	1412002-02	Soil	12/01/14 10:00	12/01/14 16:10
SS23@3'	1412002-03	Soil	12/01/14 10:30	12/01/14 16:10
SS24@3'	1412002-04	Soil	12/01/14 13:00	12/01/14 16:10
SS25@3'	1412002-05	Soil	12/01/14 13:30	12/01/14 16:10

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: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

Summit Scientific 1412002

S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: LT Environmental, Inc. Project Manager: Chris Roy
Address: 4600 West 60th Ave E-Mail: Doble group
City/State/Zip: Arvada, CO 80003
Phone: 303-433-9788 Fax: 303-433-1432 Project Name: Huwa 11-1, 2
Sampler Name: D. Haskel Project Number: 008314068

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	CRD DRO	NegH	
1	SS2103'	12/11/14	0930	1						X			X	X	X	
2	SS2203'	↓	1000	1												
3	SS2303'	↓	1030	1												
4	SS2403'	↓	1300	1												
5	SS2503'	↓	1330	1												
6																
7																
8																
9																
10																

Relinquished by: <u>DLH</u> Date/Time: <u>12/11/14</u>	Received by: <u>MA</u> Date/Time: <u>12/11/14 1615</u>	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___	Notes:
Relinquished by:	Received by:	Sample Integrity: Temperature Upon Receipt: <u>4°C</u> Intact: <input checked="" type="radio"/> Yes No	
Relinquished by:	Received by:		

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

SS21@3'
1412002-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/01/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	140	50	mg/kg	1	1412007	12/01/14	12/01/14	8015M	

Date Sampled: 12/01/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		107 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/01/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	0.010	0.010	mg/kg	1	1412010	12/01/14	12/01/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0095	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.24	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	11	0.50	"	"	"	"	"	"	

Date Sampled: 12/01/14 09:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		91.3 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		124 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

SS22@3'
1412002-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/01/14 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1412007	12/01/14	12/01/14	8015M	

Date Sampled: 12/01/14 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		103 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/01/14 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1412010	12/01/14	12/01/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/01/14 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

SS23@3'
1412002-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/01/14 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1412007	12/01/14	12/01/14	8015M	

Date Sampled: 12/01/14 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		104 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/01/14 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1412010	12/01/14	12/01/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/01/14 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

SS24@3'
1412002-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/01/14 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1412007	12/01/14	12/01/14	8015M	

Date Sampled: 12/01/14 13:00

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: 12/01/14 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1412010	12/01/14	12/01/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/01/14 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

SS25@3'
1412002-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/01/14 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1412007	12/01/14	12/01/14	8015M	

Date Sampled: 12/01/14 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		103 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/01/14 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1412010	12/01/14	12/01/14	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/01/14 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.7 %	21-167		"	"	"	"	

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1412007 - EPA 3550A

Blank (1412007-BLK1)

Prepared & Analyzed: 12/01/14

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	12.6		"	12.2		104	30-150				

LCS (1412007-BS1)

Prepared & Analyzed: 12/01/14

C10-C28 (DRO)	491	50	mg/kg	501		98.0	73-134				
<i>Surrogate: o-Terphenyl</i>	12.5		"	12.2		102	30-150				

Matrix Spike (1412007-MS1)

Source: 1411192-01

Prepared & Analyzed: 12/01/14

C10-C28 (DRO)	511	50	mg/kg	498	ND	103	50-148				
<i>Surrogate: o-Terphenyl</i>	13.3		"	12.1		110	30-150				

Matrix Spike Dup (1412007-MSD1)

Source: 1411192-01

Prepared & Analyzed: 12/01/14

C10-C28 (DRO)	475	50	mg/kg	489	ND	97.0	50-148	7.42		13	
<i>Surrogate: o-Terphenyl</i>	12.0		"	11.9		100	30-150				

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

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 1412010 - EPA 5030 Soil MS

Blank (1412010-BLK1)

Prepared & Analyzed: 12/01/14

Naphthalene	ND	0.010	mg/kg							
Benzene	ND	0.0020	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0416</i>		<i>"</i>	<i>0.0396</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0385</i>		<i>"</i>	<i>0.0400</i>		<i>96.3</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>99.9</i>	<i>21-167</i>			

LCS (1412010-BS1)

Prepared & Analyzed: 12/01/14

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0913	0.0020	"	0.100		91.3	58-130			
Toluene	0.0903	0.0050	"	0.100		90.3	61-134			
Ethylbenzene	0.101	0.0050	"	0.0992		102	74-139			
m,p-Xylene	0.192	0.010	"	0.200		96.2	73-137			
o-Xylene	0.102	0.0050	"	0.0984		104	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0415</i>		<i>"</i>	<i>0.0396</i>		<i>105</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0395</i>		<i>"</i>	<i>0.0400</i>		<i>98.7</i>	<i>21-167</i>			

Matrix Spike (1412010-MS1)

Source: 1412002-02

Prepared & Analyzed: 12/01/14

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0892	0.0020	"	0.0990	ND	90.1	30-131			
Toluene	0.0882	0.0050	"	0.0990	ND	89.1	30-134			
Ethylbenzene	0.0986	0.0050	"	0.0982	ND	100	22-153			
m,p-Xylene	0.188	0.010	"	0.198	ND	95.4	10-159			
o-Xylene	0.101	0.0050	"	0.0974	ND	104	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0423</i>		<i>"</i>	<i>0.0392</i>		<i>108</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0396</i>		<i>98.9</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0385</i>		<i>"</i>	<i>0.0396</i>		<i>97.3</i>	<i>21-167</i>			

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

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 1412010 - EPA 5030 Soil MS

Matrix Spike Dup (1412010-MSD1)	Source: 1412002-02			Prepared & Analyzed: 12/01/14						
Naphthalene	ND	0.010	mg/kg	ND	ND	10-158			42	
Benzene	0.0943	0.0020	"	0.0998	ND	94.4	30-131	5.54	34	
Toluene	0.0929	0.0050	"	0.0998	ND	93.1	30-134	5.27	30	
Ethylbenzene	0.104	0.0050	"	0.0990	ND	105	22-153	5.38	24	
m,p-Xylene	0.202	0.010	"	0.199	ND	102	10-159	7.16	68	
o-Xylene	0.107	0.0050	"	0.0982	ND	109	31-151	5.51	38	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0472</i>		<i>"</i>	<i>0.0395</i>		<i>119</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0393</i>		<i>"</i>	<i>0.0399</i>		<i>98.3</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0410</i>		<i>"</i>	<i>0.0399</i>		<i>103</i>	<i>21-167</i>			

Summit Scientific

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

Project: Huwa 11-1, 2

Project Number: 008314068
Project Manager: Chris Roy

Reported:
12/02/14 06:34

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