

State of Colorado
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

REM #4795

RECEIVED
1/22/2014

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: 2147394

GENERAL INFORMATION

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 Name: Asher Weinberg No: (303) 228-4000 Fax:	
API/Facility No: _____ Facility Name: Ramos-68S96W Well Name: M Dutton Location (QtrQtr, Sec, Twp, Rng, Meridian): NESW, 1, 8S, 96W, 6th		County: Garfield Facility Number: 334104 Well Number: _____ Latitude: 39.276631 Longitude: -108.06142	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): _____ Site Conditions: Is location within a sensitive area (according to Rule 901e)? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N If yes, attach evaluation.		Produced Water Non-irrigated rangeland Potts Loam, 6 to 12 percent slopes	
Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): _____ Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____ Potential receptors (water wells within 1/4 mi, surface waters, etc.): A residence and water well are located 925 ft west, an ephemeral drainage is located 674 ft northwest, depth to groundwater estimated to be greater than 80 ft bgs			
Description of Impact (if previously provided, refer to that form or document):			
Impacted Media (check): <input checked="" type="checkbox"/> Soils <input type="checkbox"/> Vegetation <input type="checkbox"/> Groundwater <input type="checkbox"/> Surface water	Extent of Impact: TBD	How Determined: TBD	

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document): See Form 19 submitted to the COGCC on 1/7/14 (Spill #2147394)
Describe how source is to be removed: Noble proposes excavating impacted soil from the former produced water pit.
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 excavated from the pit will be transported to an approved disposal facility.

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REMEDIAL WORKPLAN (CONT.)

Tracking Number: _____
Name of Operator: Noble Energy
OGCC Operator No: 100322
Well Name & No: _____
Facility Name & No.: Ramos-68S96W 334104

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

Groundwater was not encountered during site investigation activities.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Excavated areas of the pit will be backfilled to the existing grade of the pad surface.

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:

Five soil borings were installed within the pit on 12/12/13 and 12/13/13. Analytical results for soil samples collected during site investigation activities indicate arsenic, EC, pH, SAR, TPH and benzene exceed COGCC Table 910-1 and background concentrations. Noble proposes excavating soils impacted by hydrocarbons from the pit.

Elevated levels of EC, pH and SAR were detected in soil samples, but were located at depths greater than 3 ft. below ground surface. Arsenic in each of the soil samples collected exceed Table 910-1. However, arsenic concentrations in soil are located at depths greater than 3 ft. below ground surface and above the static groundwater level. When collecting confirmation soil samples following excavation activities, Noble would like to request relief from COGCC Table 910-1 to reduce the sampling analyte list to BTEX and TPH.

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

Impacted soil excavated from the pit will be transported to an approved disposal facility

IMPLEMENTATION SCHEDULE

Date Site Investigation Began:	<u>12/12/2013</u>	Date Site Investigation Completed:	<u>TBD</u>	Remediation Plan Submitted:	<u>1/22/2014</u>
Remediation Start Date:	<u>2/3/2014</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: Asher Weinberg

Signed: _____ Title: Environmental Coordinator Date: 1/22/2014

OGCC Approved: _____ Title: _____ Date: _____

Request for NFA denied. Additional investigation requested.

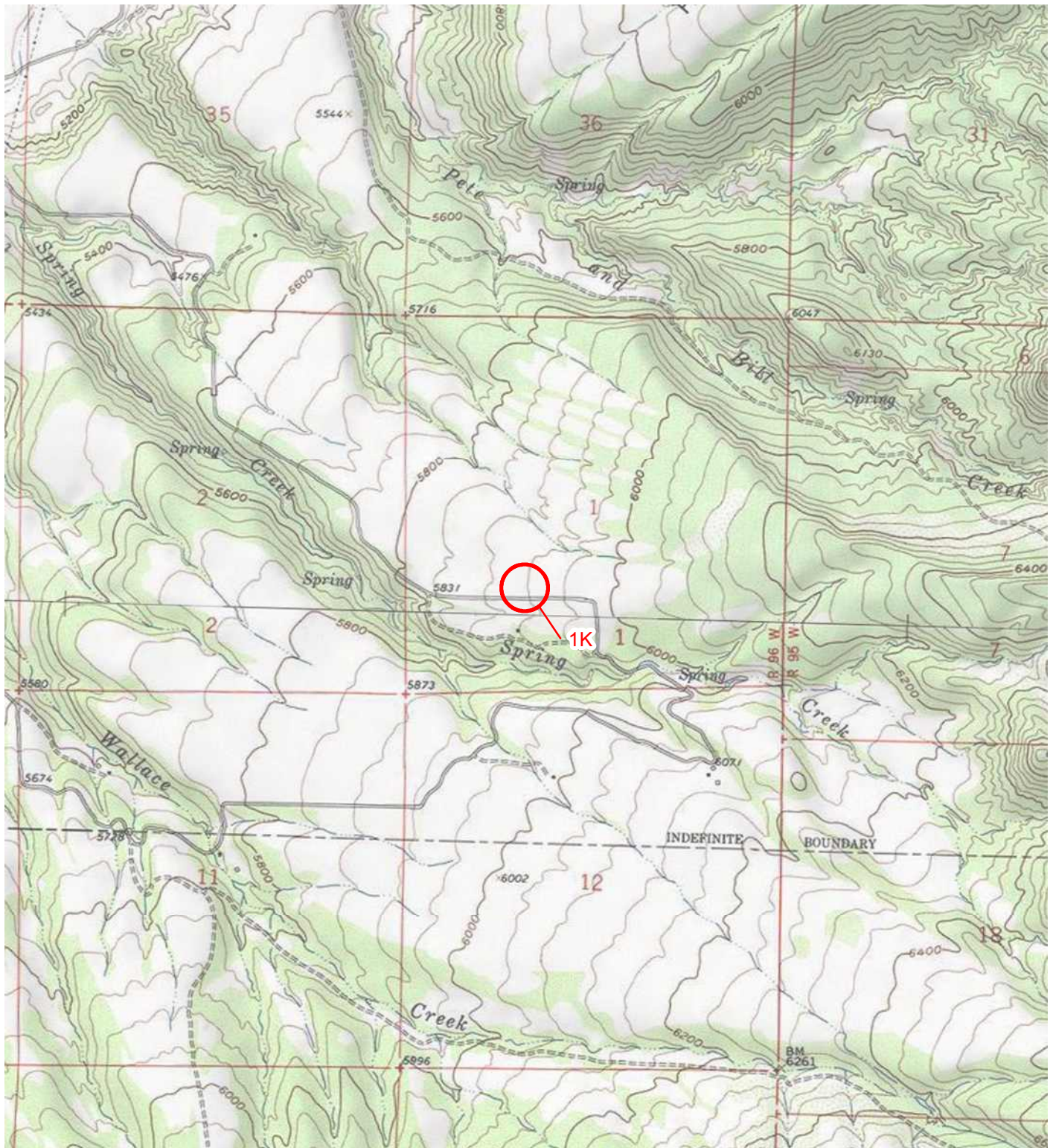


IMAGE COURTESY OF ESRI/USGS

LEGEND

○ SITE LOCATION

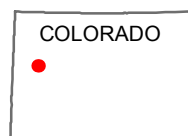
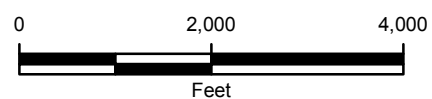


FIGURE 1
SITE LOCATION MAP
1K
GARFIELD COUNTY, COLORADO

NOBLE ENERGY, INC





IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- SOIL SAMPLE
- ▲ BACKGROUND SAMPLE
- PIT BOUNDARY

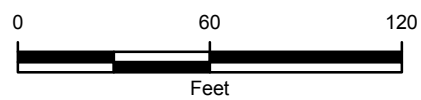


FIGURE 2
SITE MAP
1K
GARFIELD COUNTY, COLORADO

NOBLE ENERGY, INC



TABLE 1
1K
SOIL ANALYTICAL RESULTS
NOBLE ENERGY
GARFIELD COUNTY, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	PITSE01 10-12'	PITSE01 15-17'	PITSW01 10-12'	PITSW01 15-17'	PITNE01 10-12'	PITNE01 20-22'	PITNW01 15-17'
Sample Date			12/12/2013	12/12/2013	12/12/2013	12/12/2013	12/13/2013	12/13/2013	12/13/2013
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Arsenic	0.39	mg/kg	8.98	3.69	5.74	3.55	10.2	5.28	4.20
Barium	15,000	mg/kg	656	426	3,260	463	1,320	327	406
Cadmium	70	mg/kg	0.380	0.329	0.353	0.453	0.299	0.322	0.348
Chromium (III)	120,000	mg/kg	17.0	12.8	31.3	13.0	16.6	13.2	14.9
Chromium (VI)	23	mg/kg	<1.15	<1.16	<1.38	<1.15	<1.29	<1.20	<1.14
Copper	3,100	mg/kg	25.9	21.4	14.8	21.0	18.1	11.3	10.9
Lead	400	mg/kg	9.87	9.24	10.4	10.5	12.1	9.50	11.0
Mercury	23	mg/kg	<0.0429	<0.0436	<0.0521	<0.0437	<0.0478	<0.0452	<0.0436
Nickel	1,600	mg/kg	34.5	30.8	12.2	27.5	24.9	19.4	30.3
Selenium	390	mg/kg	<0.0432	<0.0443	0.137	<0.0438	0.0487	<0.0457	<0.0428
Silver	390	mg/kg	1.55	0.116	0.151	0.0954	0.141	<0.0914	0.114
Zinc	23,000	mg/kg	40.9	42.8	38.0	45.1	46.9	38.8	44.2
EC	4.0	mmhos/cm	2.81	6.31	8.61	6.02	5.00	5.84	6.13
pH	6 - 9	SU	8.43	8.83	6.43	8.61	7.59	8.39	8.7
SAR	12	unitless	6.18	19.2	28.3	13.4	15.9	21.1	19.9
TPH-GRO		mg/kg	3.7	4.6	530	0.55	2,400	<0.50	<0.50
TPH-DRO		mg/kg	110	140	4,200	<50	20,000	<50	<50
TPH	500	mg/kg	113.7	144.6	4,730	0.55	22,400	<50.50	<50.50
Benzene	0.17	mg/kg	<0.0020	<0.0020	0.0048	<0.0020	2.0	<0.0020	<0.0020
Toluene	85	mg/kg	<0.0050	0.0056	0.014	<0.0050	0.52	<0.0050	<0.0050
Ethylbenzene	100	mg/kg	0.0082	0.0099	0.065	<0.0050	2.4	<0.0050	<0.0050
Total Xylenes	175	mg/kg	0.13	0.19	2.3	<0.0050	52	<0.0050	0.016
Acenaphthene	1000	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	0.611	<0.00500	<0.00500
Anthracene	1000	mg/kg	<0.00500	<0.00500	0.124	<0.00500	5.460	<0.00500	<0.00500
Benzo(A)anthracene	0.22	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	0.721	<0.00500	<0.00500
Benzo(B)fluoranthene	0.22	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	<0.400	<0.00500	<0.00500
Benzo(K)fluoranthene	2.2	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	<0.400	<0.00500	<0.00500
Benzo(A)pyrene	0.022	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	<0.400	<0.00500	<0.00500
Chrysene	22	mg/kg	<0.00500	<0.00500	0.0103	<0.00500	0.768	<0.00500	<0.00500
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	<0.400	<0.00500	<0.00500
Fluoranthene	1000	mg/kg	<0.00500	<0.00500	0.00545	<0.00500	<0.400	<0.00500	<0.00500
Fluorene	1000	mg/kg	0.0124	0.00683	0.140	<0.00500	2.970	<0.00500	<0.00500
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.00500	<0.00500	<0.00500	<0.00500	<0.400	<0.00500	<0.00500
Naphthalene	23	mg/kg	0.0883	0.0268	0.125	0.0161	8.400	0.0157	0.0139
Pyrene	1000	mg/kg	<0.00500	<0.00500	0.0130	<0.00500	<0.400	<0.00500	<0.00500

NOTES:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC- electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

NA - not analyzed

SAR - Sodium Adsorption Ratio

SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO



TABLE 1
1K
SOIL ANALYTICAL RESULTS
NOBLE ENERGY
GARFIELD COUNTY, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	PIT01 15-17'	PIT01 20-22'	BGS01 8"	BGE01 8"	BGN01 8"	BGW01 8"
Sample Date			12/13/2013	12/13/2013	12/13/2013	12/13/2013	12/13/2013	12/13/2013
Sample Type			Confirmation	Confirmation	Background	Background	Background	Background
Arsenic	0.39	mg/kg	5.46	5.05	3.11	2.67	2.55	2.17
Barium	15,000	mg/kg	2,540	489	NA	NA	NA	NA
Cadmium	70	mg/kg	0.544	0.426	NA	NA	NA	NA
Chromium (III)	120,000	mg/kg	12.4	13.6	NA	NA	NA	NA
Chromium (VI)	23	mg/kg	<1.24	<1.14	NA	NA	NA	NA
Copper	3,100	mg/kg	11.2	11.2	NA	NA	NA	NA
Lead	400	mg/kg	9.52	10.1	NA	NA	NA	NA
Mercury	23	mg/kg	<0.0476	0.0414	NA	NA	NA	NA
Nickel	1,600	mg/kg	17.1	27.5	NA	NA	NA	NA
Selenium	390	mg/kg	0.0733	<0.0435	NA	NA	NA	NA
Silver	390	mg/kg	0.108	0.125	NA	NA	NA	NA
Zinc	23,000	mg/kg	39.5	37.8	NA	NA	NA	NA
EC	4.0	mmhos/cm	8.61	3.84	0.292	0.302	0.293	0.311
pH	6 - 9	SU	11.1	9.77	8.87	8.42	8.24	8.10
SAR	12	unitless	15.8	14.7	0.150	0.190	0.210	0.180
TPH-GRO		mg/kg	3,000	0.67	NA	NA	NA	NA
TPH-DRO		mg/kg	6,700	<50	NA	NA	NA	NA
TPH	500	mg/kg	9,700	0.67	NA	NA	NA	NA
Benzene	0.17	mg/kg	1.6	<0.0020	NA	NA	NA	NA
Toluene	85	mg/kg	23	<0.0050	NA	NA	NA	NA
Ethylbenzene	100	mg/kg	4.6	<0.0050	NA	NA	NA	NA
Total Xylenes	175	mg/kg	5.4	0.029	NA	NA	NA	NA
Acenaphthene	1000	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Anthracene	1000	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Benzo(A)anthracene	0.22	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Benzo(B)fluoranthene	0.22	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Benzo(K)fluoranthene	2.2	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Benzo(A)pyrene	0.022	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Chrysene	22	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Fluoranthene	1000	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Fluorene	1000	mg/kg	0.481	<0.00500	NA	NA	NA	NA
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA
Naphthalene	23	mg/kg	2.850	0.0136	NA	NA	NA	NA
Pyrene	1000	mg/kg	<0.0500	<0.00500	NA	NA	NA	NA

NOTES:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC- electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

NA - not analyzed

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SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 24, 2013

Jake Janicek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: NEP - 1K

Enclosed are the results of analyses for samples received by Summit Scientific on 12/17/13 12:40. 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', written in a cursive style.

Ben Shrewsbury
President / Laboratory Manager



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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BGS01 8"	R312090-01	Soil	12/13/13 10:00	12/17/13 12:40
BGE01 8"	R312090-02	Soil	12/13/13 10:10	12/17/13 12:40
BGN01 8"	R312090-03	Soil	12/13/13 10:20	12/17/13 12:40
BGW01 8"	R312090-04	Soil	12/13/13 10:25	12/17/13 12:40
PITNE01 10-12'	R312090-05	Soil	12/13/13 12:05	12/17/13 12:40
PITNE01 20-22'	R312090-06	Soil	12/13/13 12:45	12/17/13 12:40
PITNW01 15-17'	R312090-07	Soil	12/13/13 14:30	12/17/13 12:40
PIT01 15-17'	R312090-08	Soil	12/13/13 15:15	12/17/13 12:40
PIT01 20-22'	R312090-09	Soil	12/13/13 15:35	12/17/13 12:40

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 - 1K

Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Summit Scientific
R312090

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

Client: LT Environmental
Address: 820 Megan Ave, Unit B
City/State/Zip: Bldg, CO 80160
Phone: 970-778-2314
Sample Name:
Project Manager: Jake Janicek
E-Mail: jjanicek@ltenv.com, rfisham@ltenv.com
Project Name: 1K
Project Number: 008313115

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Sample Depth	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH GRO/DRO	Table 910 PAHs	Table 910 Metals	PCB	
Pescl	12/13/13	10:00	10'	1			X										
Pescl	12/13/13	10:00	10'	1			X										
Pescl	12/13/13	10:00	10'	1			X										
Pescl	12/13/13	10:05	10'	1			X										
Pescl	12/13/13	10:05	10:00	4			X										
Pescl	12/13/13	10:05	10:00	4			X										
Pescl	12/13/13	10:30	15:00	4			X										
Pescl	12/13/13	10:35	15:00	4			X										
Pescl	12/13/13	10:35	10:00	4			X										

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check):	Notes:
[Signature]	12/13/13 10:05	[Signature]	12/16/13 10:00	72 Hours	Please direct Bill Asher
[Signature]	12/13/13 10:00	[Signature]	12/17/13 10:00	Standard	Weinberg of Noble Energy
[Signature]	12/13/13 10:00	[Signature]	12/17/13 10:00	48 Hours	

Sample Integrity: Temperature Upon Receipt: 20.3
Intact: Yes No

www.SummitScientific.com

Summit Scientific

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[Signature]



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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGS01 8"
R312090-01 (Soil)

Summit Scientific

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.11	0.0987	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1440	10.3	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	60.0	5.17	"	"	"	"	"	"	
Sodium	20.8	10.3	"	"	"	"	"	"	

Date Sampled: 12/13/13 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.150		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.292	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.87	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGS01 8"
R312090-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/13/13 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.1		%	1	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGE01 8"
R312090-02 (Soil)

Summit Scientific

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 10:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.67	0.0964	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 10:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	655	10.6	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	34.7	5.32	"	"	"	"	"	"	
Sodium	18.6	10.6	"	"	"	"	"	"	

Date Sampled: 12/13/13 10:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.190		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.302	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 10:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.42	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Summit Scientific

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

Project: NEP - 1K

Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGE01 8"
R312090-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/13/13 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.2		%	1	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGN01 8"
R312090-03 (Soil)

Summit Scientific

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.55	0.102	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1320	11.1	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	63.4	5.53	"	"	"	"	"	"	
Sodium	29.2	11.1	"	"	"	"	"	"	

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.210		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.293	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.24	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Summit Scientific

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

Project: NEP - 1K

Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGN01 8"
R312090-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.3		%	1	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGW01 8"
R312090-04 (Soil)

Summit Scientific

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.17	0.0961	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	541	10.2	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	44.9	5.10	"	"	"	"	"	"	
Sodium	15.8	10.2	"	"	"	"	"	"	

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.180		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.311	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Summit Scientific

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

Project: NEP - 1K

Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

BGW01 8"
R312090-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 10:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.8		%	1	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 10-12'
R312090-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	20000	50	mg/kg	1	3121804	12/18/13	12/19/13	8015M	

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		524 %	30-150		"	"	"	"	S-02

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.0	0.020	mg/kg	10	3121805	12/18/13	12/19/13	EPA 8260B	
Toluene	0.52	0.050	"	"	"	"	"	"	
Ethylbenzene	2.4	0.050	"	"	"	"	"	"	
Xylenes (total)	52	1.0	"	200	"	"	12/19/13	"	
Gasoline Range Hydrocarbons	2400	100	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.7 %	23-173		"	"	12/19/13	"	
Surrogate: Toluene-d8		114 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	611	400	ug/kg	10	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Anthracene	5460	400	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 10-12'
R312090-05 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	721	400	ug/kg	10	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	400	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	400	"	"	"	"	"	"	
Benzo (a) pyrene	ND	400	"	"	"	"	"	"	
Chrysene	768	400	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	400	"	"	"	"	"	"	
Fluoranthene	ND	400	"	"	"	"	"	"	
Fluorene	2970	400	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	400	"	"	"	"	"	"	
Naphthalene	8400	400	"	"	"	"	"	"	
Pyrene	ND	400	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:05

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		%	50-150		"	"	"	"	S-06
Surrogate: Fluoranthene-d10		%	50-150		"	"	"	"	S-06

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 12:05

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	10.2	0.0974	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	
Barium	1320	0.0974	"	"	"	"	12/19/13	"	
Cadmium	0.299	0.0974	"	"	"	"	12/18/13	"	
Chromium	17.9	0.487	"	"	"	"	"	"	
Copper	18.1	0.487	"	"	"	"	"	"	
Lead	12.1	0.0974	"	"	"	"	"	"	
Nickel	24.9	0.0974	"	"	"	"	"	"	
Selenium	ND	0.0487	"	"	"	"	"	"	
Silver	0.141	0.0974	"	"	"	"	"	"	
Zinc	46.9	9.74	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 10-12'
R312090-05 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0478	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.29	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	16.6	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	600	10.5	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	144	5.27	"	"	"	"	"	"	
Sodium	1670	10.5	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.9		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 10-12'
R312090-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/13/13 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.00	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: **12/13/13 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.59	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: **12/13/13 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.7		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 20-22'
R312090-06 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3121804	12/18/13	12/20/13	8015M	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121805	12/18/13	12/19/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 20-22'
R312090-06 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	15.7	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.3 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.0 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.28	0.0914	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	
Barium	327	0.0914	"	"	"	"	"	"	
Cadmium	0.322	0.0914	"	"	"	"	"	"	
Chromium	14.4	0.457	"	"	"	"	"	"	
Copper	11.3	0.457	"	"	"	"	"	"	
Lead	9.50	0.0914	"	"	"	"	"	"	
Nickel	19.4	0.0914	"	"	"	"	"	"	
Selenium	ND	0.0457	"	"	"	"	"	"	
Silver	ND	0.0914	"	"	"	"	"	"	
Zinc	38.8	9.14	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 20-22'
R312090-06 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0452	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.20	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	13.2	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	570	9.91	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	104	4.95	"	"	"	"	"	"	
Sodium	2090	9.91	"	"	"	"	"	"	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	21.1		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNE01 20-22'
R312090-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.84	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.39	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: 12/13/13 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.3		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNW01 15-17'
R312090-07 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3121804	12/18/13	12/20/13	8015M	

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121805	12/18/13	12/19/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.016	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNW01 15-17'
R312090-07 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	13.9	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		69.2 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		77.1 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.20	0.0855	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	
Barium	406	0.0855	"	"	"	"	"	"	
Cadmium	0.348	0.0855	"	"	"	"	"	"	
Chromium	16.0	0.428	"	"	"	"	"	"	
Copper	10.9	0.428	"	"	"	"	"	"	
Lead	11.0	0.0855	"	"	"	"	"	"	
Nickel	30.3	0.0855	"	"	"	"	"	"	
Selenium	ND	0.0428	"	"	"	"	"	"	
Silver	0.114	0.0855	"	"	"	"	"	"	
Zinc	44.2	8.55	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNW01 15-17'
R312090-07 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Mercury	ND	0.0436	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	1.14	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium+3 Calculated	14.9	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	598	9.02	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	75.1	4.51	"	"	"	"	"	"	
Sodium	1940	9.02	"	"	"	"	"	"	

Date Sampled: 12/13/13 14:30

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	19.9		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PITNW01 15-17'
R312090-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/13/13 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.13	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: **12/13/13 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.70	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: **12/13/13 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 15-17'
R312090-08 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	6700	50	mg/kg	1	3121804	12/18/13	12/19/13	8015M	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		42.2 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.6	0.020	mg/kg	10	3121805	12/18/13	12/19/13	EPA 8260B	
Toluene	23	1.0	"	200	"	"	"	"	
Ethylbenzene	4.6	0.050	"	10	"	"	"	"	
Xylenes (total)	5.4	0.050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3000	100	"	200	"	"	"	"	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		124 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		115 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	50.0	ug/kg	1	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Anthracene	ND	50.0	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 15-17'
R312090-08 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	50.0	ug/kg	1	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	50.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	50.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	50.0	"	"	"	"	"	"	
Chrysene	ND	50.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	50.0	"	"	"	"	"	"	
Fluoranthene	ND	50.0	"	"	"	"	"	"	
Fluorene	418	50.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	50.0	"	"	"	"	"	"	
Naphthalene	2850	500	"	10	"	"	"	"	
Pyrene	ND	50.0	"	1	"	"	"	"	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		77.3 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.1 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.46	0.0939	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	
Barium	2540	0.0939	"	"	"	"	12/19/13	"	
Cadmium	0.544	0.0939	"	"	"	"	12/18/13	"	
Chromium	13.6	0.470	"	"	"	"	"	"	
Copper	11.2	0.470	"	"	"	"	"	"	
Lead	9.52	0.0939	"	"	"	"	"	"	
Nickel	17.1	0.0939	"	"	"	"	"	"	
Selenium	0.0733	0.0470	"	"	"	"	"	"	
Silver	0.108	0.0939	"	"	"	"	"	"	
Zinc	39.5	9.39	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 15-17'
R312090-08 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0476	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.24	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	12.4	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1410	10.2	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	15.1	5.08	"	"	"	"	"	"	
Sodium	2180	10.2	"	"	"	"	"	"	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.8		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 15-17'
R312090-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.61	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	11.1	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: 12/13/13 15:15

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.7		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 20-22'
R312090-09 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3121804	12/18/13	12/20/13	8015M	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121805	12/18/13	12/19/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.029	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.67	0.50	"	"	"	"	"	"	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

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4600 West 60th Avenue
Arvada CO, 80003

Project: NEP - 1K
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Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 20-22'
R312090-09 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/18/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	13.6	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		62.9 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		78.2 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.05	0.0870	mg/kg dry	1	3121711	12/17/13	12/18/13	EPA 6020A	
Barium	489	0.0870	"	"	"	"	"	"	
Cadmium	0.426	0.0870	"	"	"	"	"	"	
Chromium	14.7	0.435	"	"	"	"	"	"	
Copper	11.2	0.435	"	"	"	"	"	"	
Lead	10.1	0.0870	"	"	"	"	"	"	
Nickel	27.5	0.0870	"	"	"	"	"	"	
Selenium	ND	0.0435	"	"	"	"	"	"	
Silver	0.125	0.0870	"	"	"	"	"	"	
Zinc	37.8	8.70	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 20-22'
R312090-09 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0414	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.14	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	13.6	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	714	9.23	mg/kg dry	1	3121901	12/19/13	12/20/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	189	4.61	"	"	"	"	"	"	
Sodium	1710	9.23	"	"	"	"	"	"	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	14.7		units	"	3121701	12/17/13	12/24/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

PIT01 20-22'
R312090-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.84	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.77	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: 12/13/13 15:35

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.5		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

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 3121804 - EPA 3550A

Blank (3121804-BLK1)

Prepared & Analyzed: 12/18/13

C10-C28 (DRO) ND 50 mg/kg

LCS (3121804-BS1)

Prepared & Analyzed: 12/18/13

C10-C28 (DRO) 492 50 mg/kg 488 101 73-134

Matrix Spike (3121804-MS1)

Source: R312106-01

Prepared & Analyzed: 12/18/13

C10-C28 (DRO) 540 50 mg/kg 480 ND 113 50-148

Matrix Spike Dup (3121804-MSD1)

Source: R312106-01

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

C10-C28 (DRO) 562 50 mg/kg 484 ND 116 50-148 4.00 13

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

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 3121805 - EPA 5030 Soil MS

Blank (3121805-BLK1)

Prepared & Analyzed: 12/18/13

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

LCS (3121805-BS1)

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

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

Matrix Spike (3121805-MS1)

Source: R312106-01

Prepared & Analyzed: 12/18/13

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

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

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 3121805 - EPA 5030 Soil MS

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

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

Blank (3121705-BLK1)

Prepared & Analyzed: 12/17/13

Acenaphthene	ND	5.00	ug/kg							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Chrysene	ND	5.00	"							
Dibenz (a,h) anthracene	ND	5.00	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Naphthalene	ND	5.00	"							
Pyrene	ND	5.00	"							
Surrogate: 2-Methylnaphthalene-d10	24.8		"	34.6		71.8	50-150			
Surrogate: Fluoranthene-d10	26.9		"	34.8		77.3	50-150			

LCS (3121705-BS1)

Prepared & Analyzed: 12/17/13

Acenaphthene	27.1	5.00	ug/kg	33.3		81.3	48-131			
Anthracene	27.6	5.00	"	33.3		82.8	48-135			
Benzo (a) anthracene	27.1	5.00	"	33.3		81.3	37-142			
Benzo (b) fluoranthene	26.5	5.00	"	33.3		79.4	35-139			
Benzo (k) fluoranthene	30.4	5.00	"	33.3		91.1	30-139			
Benzo (a) pyrene	28.2	5.00	"	33.3		84.7	41-132			
Chrysene	28.6	5.00	"	33.3		85.9	30-136			
Dibenz (a,h) anthracene	27.3	5.00	"	33.3		82.0	24-127			
Fluoranthene	25.6	5.00	"	33.3		76.9	50-139			
Fluorene	26.9	5.00	"	33.3		80.8	50-130			
Indeno (1,2,3-cd) pyrene	25.6	5.00	"	33.3		76.7	26-139			
Naphthalene	27.3	5.00	"	33.3		82.0	40-135			
Pyrene	27.3	5.00	"	33.3		81.9	39-141			
Surrogate: 2-Methylnaphthalene-d10	26.1		"	34.6		75.3	50-150			
Surrogate: Fluoranthene-d10	28.0		"	34.8		80.5	50-150			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

LCS Dup (3121705-BSD1)

Prepared & Analyzed: 12/17/13

Acenaphthene	28.6	5.00	ug/kg	33.3		85.9	48-131	5.43	23	
Anthracene	28.6	5.00	"	33.3		85.8	48-135	3.54	28	
Benzo (a) anthracene	28.5	5.00	"	33.3		85.5	37-142	5.07	32	
Benzo (b) fluoranthene	28.2	5.00	"	33.3		84.6	35-139	6.33	30	
Benzo (k) fluoranthene	31.6	5.00	"	33.3		94.9	30-139	4.07	27	
Benzo (a) pyrene	30.1	5.00	"	33.3		90.3	41-132	6.35	25	
Chrysene	30.1	5.00	"	33.3		90.2	30-136	4.96	27	
Dibenz (a,h) anthracene	29.1	5.00	"	33.3		87.3	24-127	6.19	29	
Fluoranthene	27.3	5.00	"	33.3		81.9	50-139	6.28	26	
Fluorene	28.8	5.00	"	33.3		86.3	50-130	6.56	24	
Indeno (1,2,3-cd) pyrene	26.6	5.00	"	33.3		79.7	26-139	3.84	30	
Naphthalene	28.7	5.00	"	33.3		86.0	40-135	4.76	21	
Pyrene	27.8	5.00	"	33.3		83.4	39-141	1.84	26	
Surrogate: 2-Methylnaphthalene-d10	26.8		"	34.6		77.5	50-150			
Surrogate: Fluoranthene-d10	28.9		"	34.8		83.0	50-150			

Duplicate (3121705-DUP1)

Source: R312088-02

Prepared & Analyzed: 12/17/13

Acenaphthene	ND	5.00	ug/kg		ND				200	
Anthracene	ND	5.00	"		ND				200	
Benzo (a) anthracene	ND	5.00	"		ND				200	
Benzo (b) fluoranthene	ND	5.00	"		ND				200	
Benzo (k) fluoranthene	ND	5.00	"		ND				200	
Benzo (a) pyrene	ND	5.00	"		ND				200	
Chrysene	ND	5.00	"		ND				200	
Dibenz (a,h) anthracene	ND	5.00	"		ND				200	
Fluoranthene	ND	5.00	"		ND				200	
Fluorene	ND	5.00	"		ND				200	
Indeno (1,2,3-cd) pyrene	ND	5.00	"		ND				200	
Naphthalene	13.5	5.00	"		16.1			17.4	200	
Pyrene	ND	5.00	"		ND				200	
Surrogate: 2-Methylnaphthalene-d10	20.8		"	34.6		60.0	50-150			
Surrogate: Fluoranthene-d10	23.2		"	34.8		66.6	50-150			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

Matrix Spike (3121705-MS1)		Source: R312089-05			Prepared & Analyzed: 12/17/13					
Acenaphthene	191	5.00	ug/kg	33.3	123	205	27-140			QM-07
Anthracene	299	5.00	"	33.3	227	216	23-144			QM-07
Benzo (a) anthracene	326	5.00	"	33.3	276	151	12-168			QM-07
Benzo (b) fluoranthene	404	5.00	"	33.3	338	200	10-170			QM-07
Benzo (k) fluoranthene	197	5.00	"	33.3	149	145	11-150			QM-07
Benzo (a) pyrene	316	5.00	"	33.3	252	193	11-162			QM-07
Chrysene	314	5.00	"	33.3	264	150	10-167			QM-07
Dibenz (a,h) anthracene	49.6	5.00	"	33.3	23.0	79.9	10-128			
Fluoranthene	579	5.00	"	33.3	520	179	18-157			QM-07
Fluorene	159	5.00	"	33.3	117	128	37-133			
Indeno (1,2,3-cd) pyrene	225	5.00	"	33.3	158	199	10-161			QM-07
Naphthalene	105	5.00	"	33.3	63.4	125	10-157			
Pyrene	601	5.00	"	33.3	553	143	10-166			QM-07
Surrogate: 2-Methylnaphthalene-d10	20.1		"	34.6		58.0	50-150			
Surrogate: Fluoranthene-d10	24.7		"	34.8		71.0	50-150			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121711 - EPA 3050B

Blank (3121711-BLK1)

Prepared: 12/17/13 Analyzed: 12/18/13

Arsenic	ND	0.100	mg/kg wet
Arsenic	ND	0.100	"
Barium	ND	0.100	"
Cadmium	ND	0.100	"
Chromium	ND	0.500	"
Copper	ND	0.500	"
Lead	ND	0.100	"
Nickel	ND	0.100	"
Selenium	ND	0.0500	"
Silver	ND	0.100	"
Zinc	ND	10.0	"

LCS (3121711-BS1)

Prepared: 12/17/13 Analyzed: 12/18/13

Arsenic	2.74	0.100	mg/kg wet	2.50	110	80-120
Arsenic	2.74	0.100	"	2.50	110	80-120
Barium	236	0.100	"	225	105	80-120
Cadmium	1.04	0.100	"	1.00	104	80-120
Chromium	11.2	0.500	"	10.0	112	80-120
Copper	22.3	0.500	"	20.0	112	80-120
Lead	8.45	0.100	"	7.52	112	80-120
Nickel	17.0	0.100	"	15.0	113	80-120
Selenium	1.44	0.0500	"	1.25	115	80-120
Silver	0.300	0.100	"	0.250	120	80-120
Zinc	8.85	10.0	"	7.52	118	80-120

LCS Dup (3121711-BSD1)

Prepared: 12/17/13 Analyzed: 12/18/13

Arsenic	2.37	0.100	mg/kg wet	2.49	95.4	80-120	14.3	20
Arsenic	2.37	0.100	"	2.49	95.4	80-120	14.3	20
Barium	219	0.100	"	224	97.8	80-120	7.44	20
Cadmium	0.959	0.100	"	0.998	96.1	80-120	7.97	20
Chromium	10.1	0.500	"	9.98	101	80-120	10.2	20
Copper	20.1	0.500	"	19.9	101	80-120	10.4	20
Lead	7.10	0.100	"	7.49	94.8	80-120	17.4	20
Nickel	15.3	0.100	"	15.0	102	80-120	10.1	20
Selenium	1.30	0.0500	"	1.25	104	80-120	10.5	20
Silver	0.277	0.100	"	0.249	111	80-120	8.22	20
Zinc	6.88	10.0	"	7.49	92.0	80-120	25.0	20

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121711 - EPA 3050B

Matrix Spike (3121711-MS1)		Source: R312090-05			Prepared: 12/17/13		Analyzed: 12/18/13			
Arsenic	8.09	0.0968	mg/kg dry	2.41	10.2	NR	75-125			QM-07
Arsenic	8.09	0.0968	"	2.41	10.2	NR	75-125			QM-07
Barium	692	0.0968	"	217	1320	NR	75-125			QM-07
Cadmium	1.21	0.0968	"	0.967	0.299	94.1	75-125			
Chromium	20.9	0.484	"	9.67	17.9	30.7	75-125			QM-07
Copper	26.2	0.484	"	19.3	18.1	41.6	75-125			QM-07
Lead	15.3	0.0968	"	7.25	12.1	44.1	75-125			QM-07
Nickel	27.2	0.0968	"	14.5	24.9	15.8	75-125			QM-07
Selenium	1.02	0.0484	"	1.21	0.0129	83.3	75-125			
Silver	0.332	0.0968	"	0.241	0.141	79.2	75-125			
Zinc	42.9	9.68	"	7.25	46.9	NR	75-125			QM-4X

Matrix Spike Dup (3121711-MSD1)		Source: R312090-05			Prepared: 12/17/13		Analyzed: 12/18/13			
Arsenic	7.95	0.0971	mg/kg dry	2.43	10.2	NR	75-125	1.76	25	QM-07
Arsenic	7.95	0.0971	"	2.43	10.2	NR	75-125	1.76	25	QM-07
Barium	1680	0.0971	"	218	1320	166	75-125	83.5	25	QM-4X
Cadmium	1.18	0.0971	"	0.972	0.299	90.2	75-125	2.75	25	
Chromium	23.3	0.486	"	9.72	17.9	55.5	75-125	11.0	25	QM-07
Copper	28.0	0.486	"	19.4	18.1	50.7	75-125	6.64	25	QM-07
Lead	19.1	0.0971	"	7.29	12.1	95.6	75-125	21.9	25	
Nickel	26.4	0.0971	"	14.6	24.9	9.90	75-125	3.18	25	QM-07
Selenium	1.05	0.0486	"	1.22	0.0129	85.4	75-125	2.92	25	
Silver	0.274	0.0971	"	0.243	0.141	54.8	75-125	19.2	25	QM-07
Zinc	45.3	9.71	"	7.29	46.9	NR	75-125	5.55	25	QM-4X

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Total Mercury by EPA Method 7471/7470/245.1 - Quality Control
Summit Scientific

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

Batch 3121703 - EPA 7471A

Blank (3121703-BLK1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	ND	0.0500	mg/kg wet								
LCS (3121703-BS1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	0.404	0.0500	mg/kg wet	0.400		101	80-120				
LCS Dup (3121703-BSD1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	0.407	0.0500	mg/kg wet	0.400		102	80-120	0.789	20		
Matrix Spike (3121703-MS1)				Source: R312088-01		Prepared: 12/17/13 Analyzed: 12/18/13					
Mercury	0.411	0.0514	mg/kg dry	0.411	0.0193	95.2	80-120				
Matrix Spike Dup (3121703-MSD1)				Source: R312088-01		Prepared: 12/17/13 Analyzed: 12/18/13					
Mercury	0.422	0.0525	mg/kg dry	0.420	0.0193	95.8	80-120	2.65	20		

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Hexavalent Chromium by EPA 7196 - Quality Control
Summit Scientific

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

Batch 3121704 - General Preparation

Blank (3121704-BLK1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	ND	1.00	mg/kg wet								
LCS (3121704-BS1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	167	1.25	mg/kg wet	157	107	85-115					
LCS Dup (3121704-BSD1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	177	1.25	mg/kg wet	157	113	85-115	5.74	20			
Duplicate (3121704-DUP1)					Source: R312088-01 Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	ND	1.38	mg/kg dry	ND				20			
Matrix Spike (3121704-MS1)					Source: R312088-01 Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	42.8	1.38	mg/kg dry	55.1	ND	77.8	85-115				QM-07

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121901 - General Preparation

Blank (3121901-BLK1)

Prepared: 12/19/13 Analyzed: 12/20/13

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	10.0	"

LCS (3121901-BS1)

Prepared: 12/19/13 Analyzed: 12/20/13

Calcium	452	10.0	mg/kg wet	399	113	80-120
Magnesium	227	5.00	"	200	113	80-120
Sodium	579	10.0	"	499	116	80-120

LCS Dup (3121901-BSD1)

Prepared: 12/19/13 Analyzed: 12/20/13

Calcium	371	10.0	mg/kg wet	401	92.6	80-120	19.7	20
Magnesium	185	5.00	"	201	91.9	80-120	20.5	20
Sodium	471	10.0	"	501	94.0	80-120	20.5	20

Matrix Spike (3121901-MS1)

Source: R312090-05

Prepared: 12/19/13 Analyzed: 12/20/13

Calcium	1070	10.5	mg/kg dry	419	600	112	75-125
Magnesium	339	5.27	"	210	144	93.1	75-125
Sodium	2140	10.5	"	524	1670	90.0	75-125

Matrix Spike Dup (3121901-MSD1)

Source: R312090-05

Prepared: 12/19/13 Analyzed: 12/20/13

Calcium	1040	10.6	mg/kg dry	421	600	103	75-125	3.38	25
Magnesium	348	5.28	"	211	144	96.6	75-125	2.39	25
Sodium	2190	10.6	"	527	1670	99.5	75-125	2.41	25

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch 3121802 - General Preparation

Duplicate (3121802-DUP1)		Source: R312088-01		Prepared & Analyzed: 12/18/13							
% Solids	72.7		%		72.6			0.138		20	
Duplicate (3121802-DUP2)		Source: R312088-02		Prepared & Analyzed: 12/18/13							
% Solids	87.0		%		87.0			0.00		20	

Batch 3121907 - General Preparation

Blank (3121907-BLK1)		Prepared: 12/19/13 Analyzed: 12/20/13									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
Blank (3121907-BLK2)		Prepared: 12/19/13 Analyzed: 12/20/13									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
Duplicate (3121907-DUP1)		Source: R312088-01		Prepared: 12/19/13 Analyzed: 12/20/13							
Specific Conductance (EC)	9.24	0.0100	mmhos/cm		8.61			7.08		20	
Duplicate (3121907-DUP2)		Source: R312088-02		Prepared: 12/19/13 Analyzed: 12/20/13							
Specific Conductance (EC)	6.18	0.0100	mmhos/cm		6.02			2.77		20	

Batch 3121908 - General Preparation

LCS (3121908-BS1)		Prepared: 12/19/13 Analyzed: 12/20/13									
pH	8.01	0.100	pH Units		8.00		100	0-200			
LCS (3121908-BS2)		Prepared: 12/19/13 Analyzed: 12/20/13									
pH	8.00	0.100	pH Units		8.00		100	0-200			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch 3121908 - General Preparation

Duplicate (3121908-DUP1)		Source: R312088-01		Prepared: 12/19/13 Analyzed: 12/20/13	
pH	6.40	0.100	pH Units	6.43	0.468 20
Duplicate (3121908-DUP2)		Source: R312088-02		Prepared: 12/19/13 Analyzed: 12/20/13	
pH	8.48	0.100	pH Units	8.61	1.52 20

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:41

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
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-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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.
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 24, 2013

Jake Janicek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: NEP - 1K

Enclosed are the results of analyses for samples received by Summit Scientific on 12/14/13 08:15. 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', written in a cursive style.

Ben Shrewsbury
President / Laboratory Manager



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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PITSW01 10-12'	R312088-01	Soil	12/12/13 13:10	12/14/13 08:15
PITSW01 15-17'	R312088-02	Soil	12/12/13 13:20	12/14/13 08:15
PITSE01 10-12'	R312088-03	Soil	12/12/13 10:40	12/14/13 08:15
PITSE01 15-17'	R312088-04	Soil	12/12/13 11:00	12/14/13 08:15

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 - 1K

Project Number: 0083-13115

Project Manager: Jake Janicek

Reported:

12/24/13 10:32

Summit Scientific

52

741 Corporate Circle Suite 1 • Golden, Colorado 80401

303-277-9310 • 303-374-5933 Fax

Page 1 of 1

Client: LT Environmental

Address: 820 Megan Ave. Unit B

City/State/Zip Rifle CO 81650

Phone: 970.778.7314

CONFIDENTIAL

Sampler Name: VICTA Held

Derivat Monomer like Ionically

Project Manager: JAKE JANICK

E-Mail: patrice@jennv.com, 715-

Project Name: JK

Project Number: 00831311

[illegible]

www.s2scientific.com

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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 - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 10-12'
R312088-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	4200	50	mg/kg	1	3121605	12/16/13	12/16/13	8015M	

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0048	0.0020	mg/kg	1	3121606	12/16/13	12/16/13	EPA 8260B	
Toluene	0.014	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.065	0.0050	"	"	"	"	"	"	
Xylenes (total)	2.3	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	530	5.0	"	10	"	"	"	"	

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		128 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	124	5.00	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 10-12'
R312088-01 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	10.3	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	5.45	5.00	"	"	"	"	"	"	
Fluorene	140	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	125	5.00	"	"	"	"	"	"	
Pyrene	13.0	5.00	"	"	"	"	"	"	

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		80.1 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		51.9 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.74	0.105	mg/kg dry	1	3121602	12/16/13	12/16/13	EPA 6020A	
Barium	3260	0.105	"	"	"	"	12/17/13	"	
Cadmium	0.353	0.105	"	"	"	"	12/16/13	"	
Chromium	32.7	0.527	"	"	"	"	"	"	
Copper	14.8	0.527	"	"	"	"	"	"	
Lead	10.4	0.105	"	"	"	"	"	"	
Nickel	12.2	0.105	"	"	"	"	"	"	
Selenium	0.137	0.0527	"	"	"	"	"	"	
Silver	0.151	0.105	"	"	"	"	12/18/13	"	
Zinc	38.0	10.5	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 10-12'
R312088-01 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: **12/12/13 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0521	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: **12/12/13 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.38	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: **12/12/13 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	31.3	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **12/12/13 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	929	11.0	mg/kg dry	1	3121601	12/16/13	12/16/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	187	5.50	"	"	"	"	"	"	
Sodium	3610	5.50	"	"	"	"	"	"	

Date Sampled: **12/12/13 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	28.3		units	"	3121701	12/17/13	12/19/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 10-12'
R312088-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.61	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.43	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: 12/12/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	72.6		%	"	3121802	12/18/13	12/18/13	% calculation	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 15-17'
R312088-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	3121605	12/16/13	12/16/13	8015M	

Date Sampled: 12/12/13 13:20

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121606	12/16/13	12/16/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.55	0.50	"	"	"	"	"	"	

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 15-17'
R312088-02 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	16.1	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		66.3 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.2 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.55	0.0877	mg/kg dry	1	3121602	12/16/13	12/16/13	EPA 6020A	
Barium	463	0.0877	"	"	"	"	12/17/13	"	
Cadmium	0.453	0.0877	"	"	"	"	12/16/13	"	
Chromium	14.1	0.438	"	"	"	"	"	"	
Copper	21.0	0.438	"	"	"	"	"	"	
Lead	10.5	0.0877	"	"	"	"	"	"	
Nickel	27.5	0.0877	"	"	"	"	"	"	
Selenium	ND	0.0438	"	"	"	"	"	"	
Silver	0.0954	0.0877	"	"	"	"	12/18/13	"	
Zinc	45.1	8.77	"	"	"	"	"	"	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 15-17'
R312088-02 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0437	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.15	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	13.0	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1690	9.47	mg/kg dry	1	3121601	12/16/13	12/16/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	290	4.73	"	"	"	"	"	"	
Sodium	2260	4.73	"	"	"	"	"	"	

Date Sampled: 12/12/13 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	13.4		units	"	3121701	12/17/13	12/19/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSW01 15-17'
R312088-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/12/13 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.02	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: **12/12/13 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.61	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: **12/12/13 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.0		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 10-12'
R312088-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	3121605	12/16/13	12/16/13	8015M	

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		108 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121606	12/16/13	12/17/13	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0082	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.13	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.7	0.50	"	"	"	"	"	"	

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 10-12'
R312088-03 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	12.4	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	88.3	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.9 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.1 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	8.98	0.0864	mg/kg dry	1	3121602	12/16/13	12/16/13	EPA 6020A	
Barium	656	0.0864	"	"	"	"	12/17/13	"	
Cadmium	0.380	0.0864	"	"	"	"	12/16/13	"	
Chromium	18.1	0.432	"	"	"	"	"	"	
Copper	25.9	0.432	"	"	"	"	"	"	
Lead	9.87	0.0864	"	"	"	"	"	"	
Nickel	34.5	0.0864	"	"	"	"	"	"	
Selenium	ND	0.0432	"	"	"	"	"	"	
Silver	1.55	0.0864	"	"	"	"	12/18/13	"	
Zinc	40.9	8.64	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 10-12'
R312088-03 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0429	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.15	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	17.0	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1080	9.20	mg/kg dry	1	3121601	12/16/13	12/16/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	339	4.60	"	"	"	"	"	"	
Sodium	908	4.60	"	"	"	"	"	"	

Date Sampled: 12/12/13 10:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.18		units	"	3121701	12/17/13	12/19/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 10-12'
R312088-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/12/13 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.81	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: **12/12/13 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.43	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: **12/12/13 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.3		%	"	3121802	12/18/13	12/18/13	% calculation	

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 15-17'
R312088-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	140	50	mg/kg	1	3121605	12/16/13	12/16/13	8015M	

Date Sampled: 12/12/13 11:00

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	3121606	12/16/13	12/17/13	EPA 8260B	
Toluene	0.0056	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0099	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.19	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	4.6	0.50	"	"	"	"	"	"	

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Semivolatile Organic Compounds by EPA Method 8270D SIM

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Anthracene	ND	5.00	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 15-17'
R312088-04 (Soil)

Summit Scientific

Semivolatile Organic Compounds by EPA Method 8270D SIM

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	5.00	ug/kg	1	3121705	12/17/13	12/17/13	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	
Fluorene	6.83	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Naphthalene	26.8	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.7 %	50-150		"	"	"	"	
Surrogate: Fluoranthene-d10		73.2 %	50-150		"	"	"	"	

Total Metals by EPA Method 6020 - Dry Weight Basis

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.69	0.0886	mg/kg dry	1	3121602	12/16/13	12/16/13	EPA 6020A	
Barium	426	0.0886	"	"	"	"	"	"	
Cadmium	0.329	0.0886	"	"	"	"	"	"	
Chromium	14.0	0.443	"	"	"	"	"	"	
Copper	21.4	0.443	"	"	"	"	"	"	
Lead	9.24	0.0886	"	"	"	"	"	"	
Nickel	30.8	0.0886	"	"	"	"	"	"	
Selenium	ND	0.0443	"	"	"	"	"	"	
Silver	0.116	0.0886	"	"	"	"	12/18/13	"	
Zinc	42.8	8.86	"	"	"	"	"	"	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 15-17'
R312088-04 (Soil)

Summit Scientific

Total Mercury by EPA Method 7471/7470/245.1

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0436	mg/kg dry	1	3121703	12/17/13	12/18/13	EPA 7471	

Hexavalent Chromium by EPA 7196

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	1.16	mg/kg dry	1	3121704	12/17/13	12/18/13	EPA 7196	

Calculated Analytes

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium+3 Calculated	12.8	1.00	mg/kg	1	3122401	12/24/13	12/24/13	Calculation	

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	876	9.34	mg/kg dry	1	3121601	12/16/13	12/16/13	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	84.0	4.67	"	"	"	"	"	"	
Sodium	2220	4.67	"	"	"	"	"	"	

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	19.2		units	"	3121701	12/17/13	12/19/13	"	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

PITSE01 15-17'
R312088-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.31	0.0100	mmhos/cm	1	3121907	12/19/13	12/20/13	SM 2510B	

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.83	0.100	pH Units	"	3121908	12/19/13	12/20/13	EPA 9045	

Date Sampled: 12/12/13 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.0		%	"	3121802	12/18/13	12/18/13	% calculation	

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

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 3121605 - EPA 3550A

Blank (3121605-BLK1)

Prepared & Analyzed: 12/16/13

C10-C28 (DRO) ND 50 mg/kg

LCS (3121605-BS1)

Prepared & Analyzed: 12/16/13

C10-C28 (DRO) 563 50 mg/kg 501 112 73-134

Matrix Spike (3121605-MS1)

Source: R312092-01

Prepared & Analyzed: 12/16/13

C10-C28 (DRO) 514 50 mg/kg 490 37.8 97.2 50-148

Matrix Spike Dup (3121605-MSD1)

Source: R312092-01

Prepared & Analyzed: 12/16/13

C10-C28 (DRO) 521 50 mg/kg 488 37.8 98.9 50-148 1.21 13

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

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 3121606 - EPA 5030 Soil MS

Blank (3121606-BLK1)

Prepared & Analyzed: 12/16/13

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0449		"	0.0394	114	23-173				
Surrogate: Toluene-d8	0.0399		"	0.0398	100	20-170				
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0398	104	21-167				

LCS (3121606-BS1)

Prepared & Analyzed: 12/16/13

Benzene	0.0867	0.0020	mg/kg	0.0978	88.6	58-130				
Toluene	0.104	0.0050	"	0.0978	106	61-134				
Ethylbenzene	0.109	0.0050	"	0.0978	111	74-139				
m,p-Xylene	0.238	0.010	"	0.196	122	73-137				
o-Xylene	0.128	0.0050	"	0.0978	131	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0420		"	0.0387	108	23-173				
Surrogate: Toluene-d8	0.0393		"	0.0391	100	20-170				
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0391	104	21-167				

Matrix Spike (3121606-MS1)

Source: R312092-01

Prepared & Analyzed: 12/16/13

Benzene	0.0873	0.0020	mg/kg	0.0982	ND	88.9	30-131			
Toluene	0.105	0.0050	"	0.0982	ND	107	30-134			
Ethylbenzene	0.139	0.0050	"	0.0982	ND	141	22-153			
m,p-Xylene	0.241	0.010	"	0.196	ND	123	10-159			
o-Xylene	0.130	0.0050	"	0.0982	ND	132	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0451		"	0.0389	116	23-173				
Surrogate: Toluene-d8	0.0387		"	0.0393	98.5	20-170				
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0393	103	21-167				

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

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 3121606 - EPA 5030 Soil MS

Matrix Spike Dup (3121606-MSD1)	Source: R312092-01			Prepared & Analyzed: 12/16/13						
Benzene	0.0871	0.0020	mg/kg	0.0992	ND	87.7	30-131	0.337	34	
Toluene	0.104	0.0050	"	0.0992	ND	105	30-134	0.796	30	
Ethylbenzene	0.139	0.0050	"	0.0992	ND	140	22-153	0.124	24	
m,p-Xylene	0.240	0.010	"	0.198	ND	121	10-159	0.379	68	
o-Xylene	0.129	0.0050	"	0.0992	ND	130	31-151	0.383	38	
Surrogate: 1,2-Dichloroethane-d4	0.0443		"	0.0393		113	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0397		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0397		101	21-167			

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

Blank (3121705-BLK1)

Prepared & Analyzed: 12/17/13

Acenaphthene	ND	5.00	ug/kg							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Chrysene	ND	5.00	"							
Dibenz (a,h) anthracene	ND	5.00	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Naphthalene	ND	5.00	"							
Pyrene	ND	5.00	"							
Surrogate: 2-Methylnaphthalene-d10	24.8		"	34.6		71.8	50-150			
Surrogate: Fluoranthene-d10	26.9		"	34.8		77.3	50-150			

LCS (3121705-BS1)

Prepared & Analyzed: 12/17/13

Acenaphthene	27.1	5.00	ug/kg	33.3		81.3	48-131			
Anthracene	27.6	5.00	"	33.3		82.8	48-135			
Benzo (a) anthracene	27.1	5.00	"	33.3		81.3	37-142			
Benzo (b) fluoranthene	26.5	5.00	"	33.3		79.4	35-139			
Benzo (k) fluoranthene	30.4	5.00	"	33.3		91.1	30-139			
Benzo (a) pyrene	28.2	5.00	"	33.3		84.7	41-132			
Chrysene	28.6	5.00	"	33.3		85.9	30-136			
Dibenz (a,h) anthracene	27.3	5.00	"	33.3		82.0	24-127			
Fluoranthene	25.6	5.00	"	33.3		76.9	50-139			
Fluorene	26.9	5.00	"	33.3		80.8	50-130			
Indeno (1,2,3-cd) pyrene	25.6	5.00	"	33.3		76.7	26-139			
Naphthalene	27.3	5.00	"	33.3		82.0	40-135			
Pyrene	27.3	5.00	"	33.3		81.9	39-141			
Surrogate: 2-Methylnaphthalene-d10	26.1		"	34.6		75.3	50-150			
Surrogate: Fluoranthene-d10	28.0		"	34.8		80.5	50-150			

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

LCS Dup (3121705-BSD1)

Prepared & Analyzed: 12/17/13

Acenaphthene	28.6	5.00	ug/kg	33.3		85.9	48-131	5.43	23	
Anthracene	28.6	5.00	"	33.3		85.8	48-135	3.54	28	
Benzo (a) anthracene	28.5	5.00	"	33.3		85.5	37-142	5.07	32	
Benzo (b) fluoranthene	28.2	5.00	"	33.3		84.6	35-139	6.33	30	
Benzo (k) fluoranthene	31.6	5.00	"	33.3		94.9	30-139	4.07	27	
Benzo (a) pyrene	30.1	5.00	"	33.3		90.3	41-132	6.35	25	
Chrysene	30.1	5.00	"	33.3		90.2	30-136	4.96	27	
Dibenz (a,h) anthracene	29.1	5.00	"	33.3		87.3	24-127	6.19	29	
Fluoranthene	27.3	5.00	"	33.3		81.9	50-139	6.28	26	
Fluorene	28.8	5.00	"	33.3		86.3	50-130	6.56	24	
Indeno (1,2,3-cd) pyrene	26.6	5.00	"	33.3		79.7	26-139	3.84	30	
Naphthalene	28.7	5.00	"	33.3		86.0	40-135	4.76	21	
Pyrene	27.8	5.00	"	33.3		83.4	39-141	1.84	26	
Surrogate: 2-Methylnaphthalene-d10	26.8		"	34.6		77.5	50-150			
Surrogate: Fluoranthene-d10	28.9		"	34.8		83.0	50-150			

Duplicate (3121705-DUP1)

Source: R312088-02

Prepared & Analyzed: 12/17/13

Acenaphthene	ND	5.00	ug/kg		ND				200	
Anthracene	ND	5.00	"		ND				200	
Benzo (a) anthracene	ND	5.00	"		ND				200	
Benzo (b) fluoranthene	ND	5.00	"		ND				200	
Benzo (k) fluoranthene	ND	5.00	"		ND				200	
Benzo (a) pyrene	ND	5.00	"		ND				200	
Chrysene	ND	5.00	"		ND				200	
Dibenz (a,h) anthracene	ND	5.00	"		ND				200	
Fluoranthene	ND	5.00	"		ND				200	
Fluorene	ND	5.00	"		ND				200	
Indeno (1,2,3-cd) pyrene	ND	5.00	"		ND				200	
Naphthalene	13.5	5.00	"		16.1			17.4	200	
Pyrene	ND	5.00	"		ND				200	
Surrogate: 2-Methylnaphthalene-d10	20.8		"	34.6		60.0	50-150			
Surrogate: Fluoranthene-d10	23.2		"	34.8		66.6	50-150			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch 3121705 - EPA 5030 Soil MS

Matrix Spike (3121705-MS1)		Source: R312089-05			Prepared & Analyzed: 12/17/13					
Acenaphthene	191	5.00	ug/kg	33.3	123	205	27-140			QM-07
Anthracene	299	5.00	"	33.3	227	216	23-144			QM-07
Benzo (a) anthracene	326	5.00	"	33.3	276	151	12-168			QM-07
Benzo (b) fluoranthene	404	5.00	"	33.3	338	200	10-170			QM-07
Benzo (k) fluoranthene	197	5.00	"	33.3	149	145	11-150			QM-07
Benzo (a) pyrene	316	5.00	"	33.3	252	193	11-162			QM-07
Chrysene	314	5.00	"	33.3	264	150	10-167			QM-07
Dibenz (a,h) anthracene	49.6	5.00	"	33.3	23.0	79.9	10-128			
Fluoranthene	579	5.00	"	33.3	520	179	18-157			QM-07
Fluorene	159	5.00	"	33.3	117	128	37-133			
Indeno (1,2,3-cd) pyrene	225	5.00	"	33.3	158	199	10-161			QM-07
Naphthalene	105	5.00	"	33.3	63.4	125	10-157			
Pyrene	601	5.00	"	33.3	553	143	10-166			QM-07
Surrogate: 2-Methylnaphthalene-d10	20.1		"	34.6		58.0	50-150			
Surrogate: Fluoranthene-d10	24.7		"	34.8		71.0	50-150			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121602 - EPA 3050B

Blank (3121602-BLK1)

Prepared & Analyzed: 12/16/13

Arsenic	ND	0.100	mg/kg wet							
Barium	0.109	0.100	"							QB-01
Cadmium	ND	0.100	"							
Chromium	ND	0.500	"							
Copper	ND	0.500	"							
Lead	ND	0.100	"							
Nickel	ND	0.100	"							
Selenium	ND	0.0500	"							
Silver	ND	0.100	"							
Zinc	ND	10.0	"							

LCS (3121602-BS1)

Prepared & Analyzed: 12/16/13

Arsenic	2.78	0.100	mg/kg wet	2.48		112	80-120			
Barium	237	0.100	"	223		106	80-120			
Cadmium	1.06	0.100	"	0.994		107	80-120			
Chromium	11.7	0.500	"	9.94		118	80-120			
Copper	22.9	0.500	"	19.8		115	80-120			
Lead	8.28	0.100	"	7.46		111	80-120			
Nickel	17.7	0.100	"	14.9		119	80-120			
Selenium	1.40	0.0500	"	1.24		113	80-120			
Silver	0.225	0.100	"	0.248		90.7	80-120			
Zinc	7.80	10.0	"	7.46		105	80-120			

Matrix Spike (3121602-MS1)

Source: R312088-02

Prepared & Analyzed: 12/16/13

Arsenic	4.43	0.0876	mg/kg dry	2.15	3.55	41.1	75-125			QM-07
Barium	658	0.0876	"	194	463	101	75-125			
Cadmium	1.66	0.0876	"	0.863	0.453	140	75-125			QM-07
Chromium	22.8	0.438	"	8.63	14.1	101	75-125			
Copper	40.3	0.438	"	17.2	21.0	112	75-125			
Lead	17.9	0.0876	"	6.48	10.5	113	75-125			
Nickel	35.5	0.0876	"	13.0	27.5	61.5	75-125			QM-07
Selenium	0.566	0.0438	"	1.08	ND	52.4	75-125			QM-07
Silver	0.319	0.0876	"	0.215	0.0954	104	75-125			
Zinc	46.5	8.76	"	6.48	45.1	21.1	75-125			QM-4X

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121602 - EPA 3050B

Matrix Spike Dup (3121602-MSD1)		Source: R312088-02			Prepared & Analyzed: 12/16/13						
Arsenic	4.45	0.0877	mg/kg dry	2.15	3.55	41.8	75-125	0.301	25		QM-07
Barium	366	0.0877	"	193	463	NR	75-125	57.1	25		QM-07
Cadmium	1.30	0.0877	"	0.861	0.453	98.5	75-125	24.3	25		
Chromium	21.0	0.438	"	8.61	14.1	80.8	75-125	7.96	25		
Copper	36.4	0.438	"	17.2	21.0	89.5	75-125	10.3	25		
Lead	14.4	0.0877	"	6.46	10.5	60.7	75-125	21.2	25		QM-07
Nickel	36.2	0.0877	"	12.9	27.5	67.5	75-125	2.09	25		QM-07
Selenium	0.493	0.0438	"	1.08	ND	45.8	75-125	13.8	25		QM-07
Silver	0.343	0.0877	"	0.215	0.0954	115	75-125	7.11	25		
Zinc	47.4	8.77	"	6.46	45.1	34.7	75-125	1.86	25		QM-4X

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Total Mercury by EPA Method 7471/7470/245.1 - Quality Control
Summit Scientific

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

Batch 3121703 - EPA 7471A

Blank (3121703-BLK1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	ND	0.0500	mg/kg wet								
LCS (3121703-BS1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	0.404	0.0500	mg/kg wet	0.400		101	80-120				
LCS Dup (3121703-BSD1)				Prepared: 12/17/13 Analyzed: 12/18/13							
Mercury	0.407	0.0500	mg/kg wet	0.400		102	80-120	0.789	20		
Matrix Spike (3121703-MS1)				Source: R312088-01		Prepared: 12/17/13 Analyzed: 12/18/13					
Mercury	0.411	0.0514	mg/kg dry	0.411	0.0193	95.2	80-120				
Matrix Spike Dup (3121703-MSD1)				Source: R312088-01		Prepared: 12/17/13 Analyzed: 12/18/13					
Mercury	0.422	0.0525	mg/kg dry	0.420	0.0193	95.8	80-120	2.65	20		

Summit Scientific

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LT Environmental, Inc.
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Arvada CO, 80003

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Hexavalent Chromium by EPA 7196 - Quality Control
Summit Scientific

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

Batch 3121704 - General Preparation

Blank (3121704-BLK1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	ND	1.00	mg/kg wet								
LCS (3121704-BS1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	167	1.25	mg/kg wet	157		107	85-115				
LCS Dup (3121704-BSD1)					Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	177	1.25	mg/kg wet	157		113	85-115	5.74	20		
Duplicate (3121704-DUP1)					Source: R312088-01 Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	ND	1.38	mg/kg dry		ND				20		
Matrix Spike (3121704-MS1)					Source: R312088-01 Prepared: 12/17/13 Analyzed: 12/18/13						
Chromium, Hexavalent	42.8	1.38	mg/kg dry	55.1	ND	77.8	85-115				QM-07

Summit Scientific

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis - Quality Control
Summit Scientific

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

Batch 3121601 - General Preparation

Blank (3121601-BLK1)

Prepared & Analyzed: 12/16/13

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (3121601-BS1)

Prepared & Analyzed: 12/16/13

Calcium	383	10.0	mg/kg wet	396	96.8	80-120
Magnesium	190	5.00	"	199	95.8	80-120
Sodium	474	5.00	"	495	95.6	80-120

LCS Dup (3121601-BSD1)

Prepared & Analyzed: 12/16/13

Calcium	390	10.0	mg/kg wet	400	97.6	80-120	1.71	20
Magnesium	195	5.00	"	200	97.6	80-120	2.78	20
Sodium	487	5.00	"	500	97.5	80-120	2.81	20

Matrix Spike (3121601-MS1)

Source: R312088-02

Prepared & Analyzed: 12/16/13

Calcium	1790	9.46	mg/kg dry	378	1690	26.4	75-125		QM-07
Magnesium	395	4.73	"	189	290	55.8	75-125		QM-07
Sodium	2280	4.73	"	473	2260	4.21	75-125		QM-07

Matrix Spike Dup (3121601-MSD1)

Source: R312088-02

Prepared & Analyzed: 12/16/13

Calcium	1660	9.52	mg/kg dry	380	1690	NR	75-125	7.52	25	QM-07
Magnesium	382	4.76	"	191	290	48.3	75-125	3.49	25	QM-07
Sodium	2230	4.76	"	476	2260	NR	75-125	1.99	25	QM-07

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch 3121802 - General Preparation

Duplicate (3121802-DUP1)		Source: R312088-01		Prepared & Analyzed: 12/18/13							
% Solids	72.7		%		72.6			0.138		20	
Duplicate (3121802-DUP2)		Source: R312088-02		Prepared & Analyzed: 12/18/13							
% Solids	87.0		%		87.0			0.00		20	

Batch 3121907 - General Preparation

Blank (3121907-BLK1)		Prepared: 12/19/13 Analyzed: 12/20/13									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
Blank (3121907-BLK2)		Prepared: 12/19/13 Analyzed: 12/20/13									
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
Duplicate (3121907-DUP1)		Source: R312088-01		Prepared: 12/19/13 Analyzed: 12/20/13							
Specific Conductance (EC)	9.24	0.0100	mmhos/cm		8.61			7.08		20	
Duplicate (3121907-DUP2)		Source: R312088-02		Prepared: 12/19/13 Analyzed: 12/20/13							
Specific Conductance (EC)	6.18	0.0100	mmhos/cm		6.02			2.77		20	

Batch 3121908 - General Preparation

LCS (3121908-BS1)		Prepared: 12/19/13 Analyzed: 12/20/13									
pH	8.01	0.100	pH Units		8.00		100	0-200			
LCS (3121908-BS2)		Prepared: 12/19/13 Analyzed: 12/20/13									
pH	8.00	0.100	pH Units		8.00		100	0-200			

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch 3121908 - General Preparation

Duplicate (3121908-DUP1)		Source: R312088-01		Prepared: 12/19/13 Analyzed: 12/20/13	
pH	6.40	0.100	pH Units	6.43	0.468 20
Duplicate (3121908-DUP2)		Source: R312088-02		Prepared: 12/19/13 Analyzed: 12/20/13	
pH	8.48	0.100	pH Units	8.61	1.52 20

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

Project: NEP - 1K
Project Number: 0083-13115
Project Manager: Jake Janicek

Reported:
12/24/13 10:32

Notes and Definitions

- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- 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.
- QB-01 The method blank exhibited contamination for this analyte at a concentration above the reporting limit but less than 10% of the sample result. Therefore, the data are reported as is.
- 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