

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

#7796

SITE INVESTIGATION AND REMEDIATION WORKPLAN

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

OGCC Employee:

Spill Complaint
 Inspection NOAV

Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

GENERAL INFORMATION

| | | | |
|--|-------------------------------|----------------------------------|-------------------------------|
| OGCC Operator Number: 95620 | | Contact Name and Telephone | |
| Name of Operator: <u>Western Operating Company</u> | | Name: <u>Steven James</u> | |
| Address: <u>518 17th Street, Suite 200</u> | | No: <u>(303) 893-2438</u> | |
| City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u> | | Fax: _____ | |
| API/Facility No: <u>05-121-06775</u> | County: <u>Washington</u> | | |
| Facility Name: <u>Peck A-1</u> | Facility Number: <u>53797</u> | | |
| Well Name: <u>Peck</u> | Well Number: <u>A-1</u> | | |
| Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NENE Sec 15 T1N R54W 6th PM</u> | | Latitude: <u>40.056116</u> | Longitude: <u>-103.397131</u> |

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): N/A

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

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

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Colby loam, 6 to 12 % slopes, Norka-Colby very fine sandy loams, 3 to 9 % slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): percent slopes. An unnamed drainage is located 720' northwest of the site.

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

| | | |
|--|-------------------|-----------------|
| Impacted Media (check): | Extent of Impact: | How Determined: |
| <input type="checkbox"/> Soils | _____ | _____ |
| <input type="checkbox"/> Vegetation | _____ | _____ |
| <input type="checkbox"/> Groundwater | _____ | _____ |
| <input type="checkbox"/> Surface water | _____ | _____ |

REMEDIALTION WORKPLAN

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

On March 13, 2013, the Colorado Oil and Gas Conservation Commission (COGCC) issued a Notice of Alleged Violation (NOAV #200376557) to WOC following an on-site inspection (February 7, 2013) (Document #667500131).

Describe how source is to be removed:

Western Operating Company (WOC) excavated and removed oily soil from the unlined oil skim pit as well as the northern and western berms that separated the skim pit from the produced water pit. The oily soil and berm material were thoroughly mixed and used to repair the lease road immediately south of the pit complex. See attached summary letter.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

The oily soil was mixed with clean berm material and spread across the surface of the lease road where it could naturally attenuate.

State of Colorado
Oil and Gas Conservation Commission

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Tracking Number: _____
 Name of Operator: Western Operating Company
 OGCC Operator No: 95620
 Received Date: _____
 Well Name & No: Peck A-1
 Facility Name & No.: Peck A-1

REMEDIATION WORKPLAN (CONT.)

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
 Not applicable.

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.

The inactive northern produced water pit and land treatment area (lease road) samples were submitted to Summit Scientific, Inc. (Summit) of Golden, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) by United States Environmental Protection Agency (EPA) Method 8260B, TPH-diesel range organics (DRO) by EPA Method 8015 DRO, pH by EPA Method 9045B, specific conductance (EC) by Standard Method 2510B, and sodium adsorption ratio (SAR) by the United States Department of Agriculture Handbook 60 Method/ EPA 6020.

Analytical results indicate soil is compliant in the inactive northern produced water pit and in the land treatment area (Table 1). The northern produced water pit will be backfilled, reclaimed to previous grade, and reseeded. The laboratory analytical report is provided in the attached summary letter.

WOC will construct a berm to isolate the location of the former unlined oil skim pit to allow for confirmation soil sampling. As depicted on Figure 2 in the attached letter, LTE will collect two-point composite soil samples (OS01 and OS02) once the area is dry. Confirmation soil samples will be submitted to Summit for BTEX, TPH-GRO, TPH-DRO, pH, EC, and SAR. If analytical results indicate the soil is compliant the COGCC Table 910-1 Concentration Levels, a subsequent Form 27 will be submitted requesting formal closure of the former oil skim pit.

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:

The former oil skim pit location requires confirmation sampling. Details regarding sampling are described above.

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

Oily soil and berm material removed from the unlined oil skim pit were thoroughly mixed and allowed to naturally attenuate on site while being used to repair the lease road.

IMPLEMENTATION SCHEDULE

| | | | | | |
|--------------------------------|------------------|------------------------------------|------------|-----------------------------|------------------|
| Date Site Investigation Began: | <u>3/21/2013</u> | Date Site Investigation Completed: | <u>TBD</u> | Remediation Plan Submitted: | <u>4/30/2013</u> |
| Remediation Start Date: | <u>NA</u> | Anticipated Completion Date: | <u>NA</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: Steven James

Signed: [Signature] Title: President Date: 4/30/2013

OGCC Approved: ACE for John Axelson Title: EPS NE Colo Date: 5/4/2013

SEE ATTACHED COAS

[Signature]
6/4/2013

CONDITIONS OF APPROVAL

Following the construction of berms sufficient to isolate and dry out the entire former skim pit location in the southeast corner of the active produced water pit, remove any oily soils and collect sufficient confirmation soil samples. All soils shall be analyzed for Total Petroleum Hydrocarbons (Diesel Range Organics and Gasoline Range Organics), Benzene, Toluene, Ethylbenzene, Total Xylenes, Electrical Conductivity, pH, and Sodium Adsorption Ratio to verify compliance with Table 910-1 parameters. The soil sampling results must be submitted for *prior approval* before backfilling or re-use of the skim pit location for other use. To that end, provide an analytical summary sheet/table comparing soil confirmation sample results to Table 910-1 Standards, accurate GPS coordinates for the pit, a sample location diagram on aerial photo image indicating the final excavation dimensions, the full laboratory analytical report, and a detailed explanation of the remediation project. Submit an updated Pit Permit for this location.



April 30, 2013

Mr. John Axelson
Northeast Region Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

**RE: Proposed Remediation Workplan
Western Operating Company
Peck A-1 Tank Battery
Facility #53797
NOAV #200376557
NENE Sec. 15 T1N R54W, 6th Principal Meridian
Washington County, Colorado**

Dear Mr. Axelson:

LT Environmental, Inc. (LTE), on behalf of Western Operating Company (WOC), is pleased to present this proposed Remediation Workplan to conduct pit closure sampling and documentation activities at the Peck A-1 Tank Battery (Site) located in Washington County, Colorado (Figure 1). The purpose of the produced water and oil skim pit closure and related remediation activities is to satisfy the requirements set forth in a recent inspection summary (Document #667500131), which resulted in a notice of alleged violation (NOAV) filed by the Colorado Oil and Gas Conservation Commission (COGCC).

Background

To remain compliant with COGCC Rule 904.a.(4), which requires that skim pits be lined, WOC converted the oil skimming process at the site from an unlined skim pit to a closed top, partially buried skim tank. During the excavation and removal of the oil skim pit, which was located in the southeast corner of the southern (currently active) produced water pit (Figure 2), WOC combined the oily soil with the removed berm material to solidify the saturated soil. The soil was then thoroughly mixed and spread along the lease road in front of the pit complex. The mixed soil was allowed to naturally attenuate while being used to repair the lease road that was in need of maintenance. After removal of the oil skim pit the enlarged area was put back into service solely as a produced water pit.

On March 13, 2013, the COGCC issued a NOAV (NOAV #200376557) to WOC following an on-site inspection conducted on February 7, 2013. The inspection summary required that confirmation samples be collected from the former unlined oil skim pit location to properly document its closure. The NOAV required that WOC submit soil disposal records of any oily waste removed from the oil skim pit or collect samples from any land treatment areas on site.



The NOAV also requested that WOC sample what appeared to be an inactive produced water pit (northern pit).

On March 21, 2013, LTE personnel were on site to collect confirmation samples from the inactive produced water pit and land treatment area (lease road). Three composite soil samples (PW01, PW02, and PW03) were collected from the inactive produced water pit. Four composite soil samples (C01 through C04) were collected from the land treatment area. Confirmation soil samples could not be collected from the location where the former unlined oil skim pit was located due to the amount of water in the active produced water pit. The inactive produced water pit and land treatment area samples along the lease road were submitted to Summit Scientific, Inc. (Summit) of Golden, Colorado, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) by United States Environmental Protection Agency (EPA) Method 8260B, TPH-diesel range organics (DRO) by EPA Method 8015 DRO, pH by EPA Method 9045B, specific conductance (EC) by Standard Method 2510B, and sodium adsorption ratio (SAR) by the United States Department of Agriculture Handbook 60 Method / EPA 6020.

Laboratory analytical results indicated all confirmation soil samples were in compliance with the COGCC Concentration Levels (Table 1) with the exception of the pH level (9.3) in sample PW02. Frequently asked question number 32 on the COGCC website explains that the COGCC will only apply the Table 910-1 Concentration Levels for EC, pH, and SAR to soil that is within 3 feet of the ground surface. As such, the COGCC requires that materials with elevated EC, pH, or SAR concentrations be buried under a minimum of 3 feet of Table 910-1 compliant backfill and a minimum of three feet above the static water level. Although pH is a parameter used to ensure proper reclamation of disturbed areas, a limited exceedance of this parameter will not likely affect reclamation, as the pit bottom will be buried below the vegetative root zone. The laboratory analytical report is attached.

As soil in the inactive northern produced water pit is in compliance with the COGCC Table 910-1 Concentration Levels, WOC is requesting authorization to backfill the inactive produced water pit to previous grade and reclaim the surrounding area.

Oil Skim Pit Closure Work Plan

WOC is currently constructing a berm to isolate the former location of the unlined oil skim pit from produced water in the active produced water pit. This berm is required so that the southeast corner of the active produced water pit can be dried out to allow for soil sampling. Once the floor of the pit is sufficiently dry, LTE will collect the two-point composite soil samples OS01 and OS02 depicted on Figure 2. The confirmation soil samples will be submitted to Summit for BTEX, TPH-GRO, TPH-DRO, pH, EC, and SAR. If analytical results indicate the soil is in compliance with the COGCC Table 910-1 Concentration Levels, a subsequent Form 27 will be submitted requesting formal closure of the former oil skim pit.

If the results indicate residual hydrocarbons exist that exceed the COGCC Table 910-1 Concentration Levels, WOC will conduct the remediation steps necessary to remove and



mitigate the soils to concentrations that are compliant with Table 910-1 concentrations. If additional remediation is necessary, a Form 27 will be submitted to update the COGCC on site conditions.

Should you have any questions, please contact Steven James with WOC at (303) 893-2438.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Michael Wicker". The signature is fluid and cursive, with the first and last names being the most prominent.

Michael Wicker
Staff Geologist

A handwritten signature in black ink, appearing to read "Brian Dodek". The signature is bold and cursive, with the first and last names being the most prominent.

Brian Dodek, P.G.
Client Manager/Senior Geologist

Attachments:

Figure 1 – Site Location Map

Figure 2 – Site Map

Table 1 – Soil Analytical Results

Attachment – Laboratory Analytical Report

FIGURES

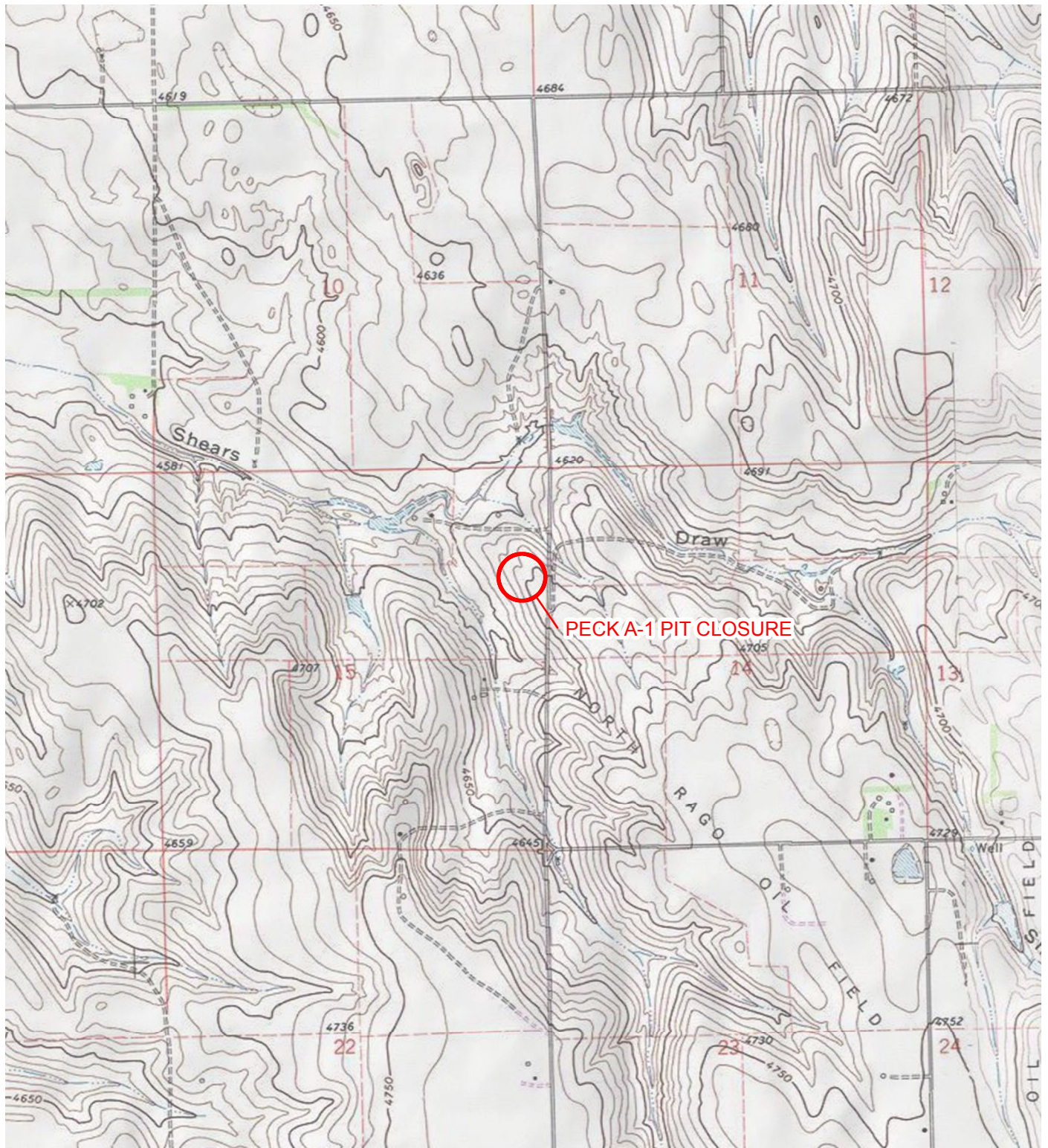


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

 SITE LOCATION

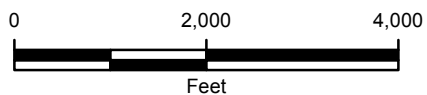


FIGURE 1
SITE LOCATION MAP
PECK A-1 PIT CLOSURE
SEC 15 T1N-R54W-6PM
WASHINGTON COUNTY, COLORADO
WESTERN OPERATING COMPANY



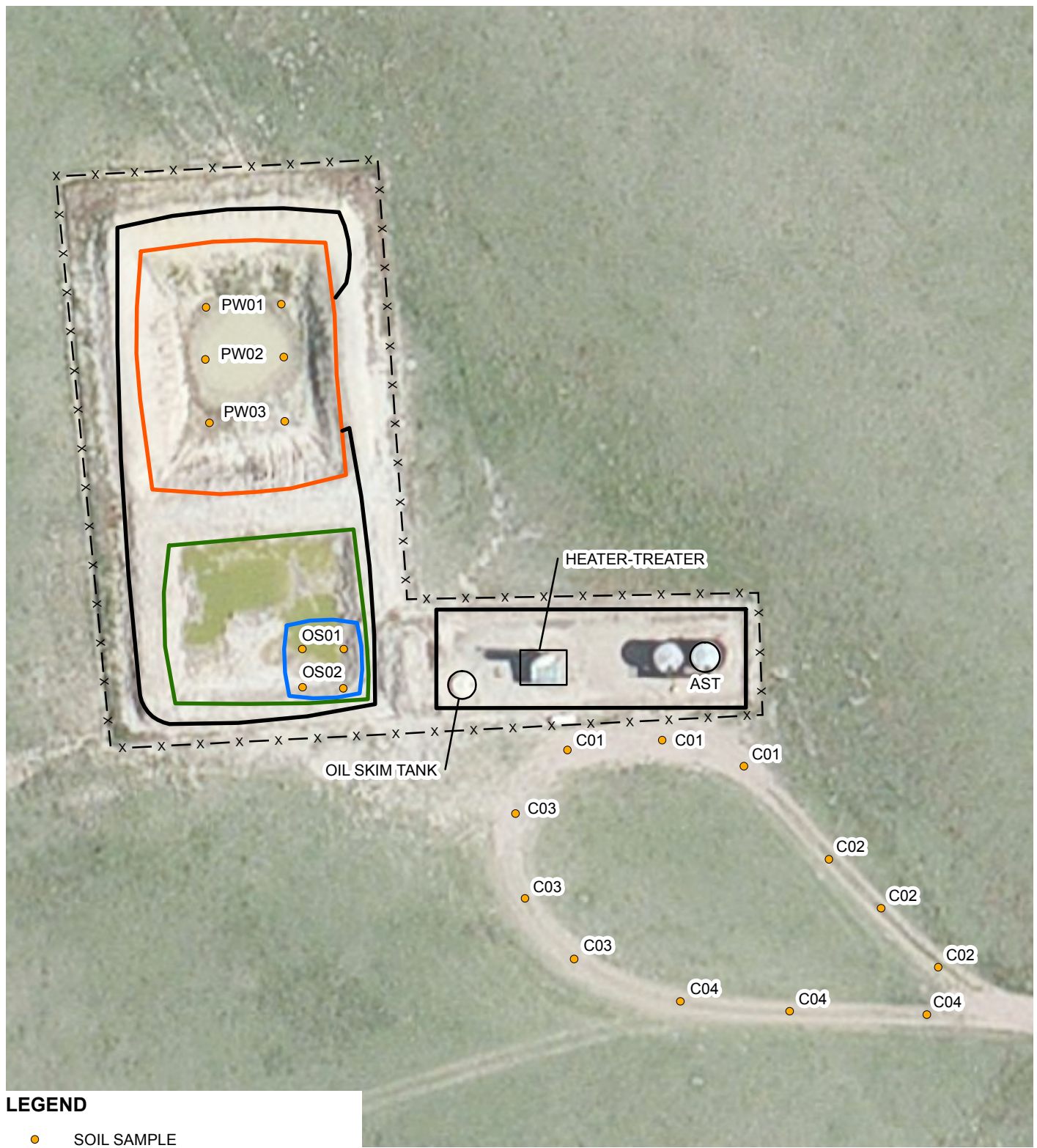


IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

- SOIL SAMPLE
- x — x FENCE
- ▭ BERM
- ▭ ACTIVE PRODUCED WATER PIT
- ▭ INACTIVE PRODUCED WATER PIT
- ▭ FORMER OIL SKIM PIT

AST: ABOVEGROUND STORAGE TANK

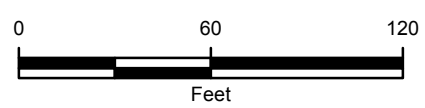


FIGURE 2
SITE MAP
 PECK A-1 PIT CLOSURE
 SEC 15 T1N-R54W-6PM
 WASHINGTON COUNTY, COLORADO
 WESTERN OPERATING COMPANY



TABLE



TABLE 1
SOIL ANALYTICAL RESULTS
PECK A-1 PIT CLOSURE
WASHINGTON COUNTY, COLORADO
WESTERN OPERATING COMPANY

| PARAMETER | COGCC Table 910-1 Concentration Level | UNITS | Sample ID: PW01 | Sample ID: PW02 | Sample ID: PW03 | Sample ID: C01 | Sample ID: C02 | Sample ID: C03 | Sample ID: C04 |
|-------------------------|---------------------------------------|----------|-----------------------------|-----------------------------|-----------------------------|---------------------|---------------------|---------------------|---------------------|
| Sample Date | | | 3/21/2013 | 3/21/2013 | 3/21/2013 | 3/21/2013 | 3/21/2013 | 3/21/2013 | 3/21/2013 |
| Sample Depth (feet bgs) | | | 4-4.5 | 4-4.5 | 4-4.5 | 0-0.5 | 0-0.5 | 0-0.5 | 0-0.5 |
| Sample Location | | | Inactive Produced Water Pit | Inactive Produced Water Pit | Inactive Produced Water Pit | Land Treatment Area | Land Treatment Area | Land Treatment Area | Land Treatment Area |
| Benzene | 0.17 | mg/kg | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| Toluene | 85 | mg/kg | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| Ethylbenzene | 100 | mg/kg | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| Total Xylenes | 175 | mg/kg | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | 0.032 |
| TPH-GRO | | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | 6.2 |
| TPH-DRO | | mg/kg | <50 | <50 | <50 | <50 | <50 | <50 | 73 |
| Total TPH | 500 | mg/kg | <50.50 | <50.50 | <50.50 | <50.50 | <50.50 | <50.50 | 79.2 |
| EC | <4 | mmhos/cm | 0.494 | 1.58 | 0.896 | 0.300 | 0.218 | 0.320 | 0.340 |
| pH | 6 - 9 | SU | 8.6 | 9.3 | 8.7 | 8.6 | 7.8 | 8.1 | 8.1 |
| SAR | <12 | unitless | 0.860 | 7.01 | 3.44 | 0.370 | 0.0100 | 0.0500 | 0.320 |

NOTES:

< - less than the stated laboratory reporting limit

bgs - below ground surface

EC - specific conductance

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter in saturated paste extract

SAR - sodium adsorption ratio

SU - standard unit on saturated paste

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

Total TPH - sum of TPH-DRO and TPH-GRO

BOLD - indicates result exceeds the applicable Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 Concentration Level



ATTACHMENT
LABORATORY ANALYTICAL REPORT



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 01, 2013

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: WOC - Peck A-1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/21/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

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

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| C01 | R303158-01 | Soil | 03/21/13 11:00 | 03/21/13 17:00 |
| C02 | R303158-02 | Soil | 03/21/13 11:10 | 03/21/13 17:00 |
| C03 | R303158-03 | Soil | 03/21/13 11:20 | 03/21/13 17:00 |
| C04 | R303158-04 | Soil | 03/21/13 11:30 | 03/21/13 17:00 |
| PW01 | R303158-05 | Soil | 03/21/13 11:50 | 03/21/13 17:00 |
| PW02 | R303158-06 | Soil | 03/21/13 12:00 | 03/21/13 17:00 |
| PW03 | R303158-07 | Soil | 03/21/13 12:10 | 03/21/13 17:00 |



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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

Summit Scientific *P 303158*

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-5910 • 303-277-9531 Fax

Client: LT Environmental, Inc. Page 1 of 1
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788
Sample Name: *M. Wilder*
Project Manager: Brian Dodek
E-Mail: bdodek@lternv.com
Project Name: *Peck A-1*
Project Number: *028413001*

| Sample Description | Date Sampled | Time Sampled | Number of Containers | Preservative | | | Matrix | | | Analyze For | | | Special Instructions | | |
|---|----------------|--------------|----------------------|--|------------------|------|-----------------|--|------|-------------------------|-----------------|---|----------------------|-------|------|
| | | | | HCl | HNO ₃ | None | Other (Specify) | Groundwater | Soil | Air - Canister Serial # | Other (Specify) | DRO | | GBTEX | BTEX |
| C01 | <i>3/21/13</i> | <i>1102</i> | 1 | | | | | | | | | | | | |
| C02 | | <i>1110</i> | 1 | | | | | | | | | | | | |
| C03 | | <i>1120</i> | 1 | | | | | | | | | | | | |
| C04 | | <i>1130</i> | 1 | | | | | | | | | | | | |
| P1001 | | <i>1150</i> | 1 | | | | | | | | | | | | |
| P1002 | | <i>1200</i> | 1 | | | | | | | | | | | | |
| P1003 | | <i>1210</i> | 1 | | | | | | | | | | | | |
| Retransmitted by: <i>[Signature]</i> Date/Time: <i>3/21/13 - 1700</i> | | | | Received by: <i>[Signature]</i> Date/Time: <i>3/21/13 1700</i> | | | | Turn Around Time (Check): <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard | | | | Notes: | | | |
| Retransmitted by: _____ Date/Time: _____ | | | | Received by: _____ Date/Time: _____ | | | | Sample Integrity: Temperature Upon Receipt: <i>5.0</i> | | | | Impact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Retransmitted by: _____ Date/Time: _____ | | | | Received in Lab by: _____ Date/Time: _____ | | | | | | | | | | | |

www.szscientific.com

[Signature]



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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C01

R303158-01 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 94.1 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 89.0 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C01
R303158-01 (Soil)

Summit Scientific

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

| Analyte | Result | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|----------------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 365 | 2.57 mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Magnesium | 27.1 | 1.03 | " | " | " | " | " | |
| Sodium | 27.1 | 5.15 | " | " | " | " | " | |

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 0.370 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.300 | 0.00100 | mmhos/cm | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.6 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 97.1 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C02
R303158-02 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 95.1 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 96.4 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 91.6 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 254 | 2.77 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C02
R303158-02 (Soil)

Summit Scientific

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

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 51.9 | 1.11 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | ND | 5.54 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 0.0100 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.218 | 0.00100 | mmhos/cm | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.8 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 90.3 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C03
R303158-03 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 95.3 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 110 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.1 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 92.6 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 813 | 2.80 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C03
R303158-03 (Soil)

Summit Scientific

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

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 48.0 | 1.12 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | ND | 5.59 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 0.0500 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.320 | 0.00100 | mmhos/cm | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.1 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 11:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 89.4 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C04
R303158-04 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-----------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | 73 | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| <i>Surrogate: o-Terphenyl</i> | | 96.8 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | 0.032 | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 6.2 | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 107 % | 23-173 | | " | " | " | " | |
| <i>Surrogate: Toluene-d8</i> | | 92.5 % | 20-170 | | " | " | " | " | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | | 99.8 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 335 | 2.81 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

C04
R303158-04 (Soil)

Summit Scientific

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

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 46.1 | 1.12 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | 23.3 | 5.61 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 0.320 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.340 | 0.00100 | mmhos/cm | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.1 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 89.1 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW01
R303158-05 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 93.7 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 103 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 96.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 92.6 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 743 | 2.91 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW01
R303158-05 (Soil)

Summit Scientific

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

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|----------------|-------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 106 | 1.16 mg/kg dry | | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | 94.8 | 5.82 | " | " | " | " | " | " | " |

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 0.860 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|------------------|-------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.494 | 0.00100 mmhos/cm | | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.6 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 85.9 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW02
R303158-06 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 96.5 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.3 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 90.1 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 650 | 2.91 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW02
R303158-06 (Soil)

Summit Scientific

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

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|----------------|-------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 152 | 1.16 mg/kg dry | | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | 764 | 5.82 | " | " | " | " | " | " | " |

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 7.01 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|------------------|-------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 1.58 | 0.00100 mmhos/cm | | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 9.3 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 12:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 85.9 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

Summit Scientific

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

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW03
R303158-07 (Soil)

Summit Scientific

Total Petroleum Hydrocarbons by 8015

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | 3032211 | 03/22/13 | 03/24/13 | 8015 DRO | |

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: <i>o</i> -Terphenyl | | 99.0 % | 30-150 | | " | " | " | " | |

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0050 | mg/kg | 1 | 3032210 | 03/22/13 | 03/23/13 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.0050 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.7 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 88.7 % | 21-167 | | " | " | " | " | |

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

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------|------------|-----------------|-----------|----------|---------|----------|----------|-------------------------------|-------|
| Calcium | 787 | 2.92 | mg/kg dry | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |

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Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

PW03
R303158-07 (Soil)

Summit Scientific

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|-------|----------|---------|----------|----------|-------------------------------|-------|
| Magnesium | 140 | 1.17 mg/kg dry | | 1 | 3032602 | 03/26/13 | 03/29/13 | EPA 6020/Mod. USDA60 6(2, 3A) | |
| Sodium | 399 | 5.85 | " | " | " | " | " | " | " |

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|--------|-------|
| Sodium Adsorption Ratio | 3.44 | | units | " | 3032903 | 03/29/13 | 03/29/13 | " | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|------------------|-------|----------|---------|----------|----------|----------|-------|
| Specific Conductance (EC) | 0.896 | 0.00100 mmhos/cm | | 1 | 3032808 | 03/28/13 | 03/28/13 | SM 2510B | |

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.7 | | pH Units | " | 3032809 | " | 03/28/13 | EPA 9045B | |

Date Sampled: **03/21/13 12:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| % Solids | 85.5 | | % | " | 3032502 | 03/25/13 | 03/26/13 | % calculation | |

Summit Scientific

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Arvada CO, 80003

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

Total Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 3032211 - EPA 3550A

| | | | | | | | | | | |
|--|-----|----|--|-----|----|-----|--------|------|----|--|
| Blank (3032211-BLK1) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| Blank (3032211-BLK2) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| LCS (3032211-BS1) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 597 | 50 | mg/kg | 501 | | 119 | 73-134 | | | |
| LCS (3032211-BS2) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 597 | 50 | mg/kg | 501 | | 119 | 73-134 | | | |
| LCS Dup (3032211-BSD1) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 620 | 50 | mg/kg | 501 | | 124 | 73-134 | 3.79 | 11 | |
| LCS Dup (3032211-BSD2) | | | Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 620 | 50 | mg/kg | 501 | | 124 | 73-134 | 3.72 | 11 | |
| Matrix Spike (3032211-MS1) | | | Source: R303162-01 Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 622 | 50 | mg/kg | 501 | ND | 124 | 50-148 | | | |
| Matrix Spike (3032211-MS2) | | | Source: R303162-02 Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 634 | 50 | mg/kg | 501 | ND | 126 | 50-148 | | | |
| Matrix Spike Dup (3032211-MSD1) | | | Source: R303162-01 Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 615 | 50 | mg/kg | 501 | ND | 123 | 50-148 | 1.25 | 13 | |
| Matrix Spike Dup (3032211-MSD2) | | | Source: R303162-02 Prepared: 03/22/13 Analyzed: 03/24/13 | | | | | | | |
| C10-C28 (DRO) | 617 | 50 | mg/kg | 501 | ND | 123 | 50-148 | 2.69 | 13 | |

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LT Environmental, Inc.
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Arvada CO, 80003

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

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

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

Batch 3032210 - EPA 5030 Soil MS

Blank (3032210-BLK1)

Prepared & Analyzed: 03/22/13

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|-----|--------|--|--|--|--|
| Benzene | ND | 0.0050 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.0050 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0461 | | " | 0.0397 | 116 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0420 | | " | 0.0400 | 105 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0412 | | " | 0.0400 | 103 | 21-167 | | | | |

Blank (3032210-BLK2)

Prepared & Analyzed: 03/22/13

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|-----|--------|--|--|--|--|
| Benzene | ND | 0.0050 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.0050 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0437 | | " | 0.0397 | 110 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0405 | | " | 0.0400 | 101 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0411 | | " | 0.0400 | 103 | 21-167 | | | | |

LCS (3032210-BS1)

Prepared & Analyzed: 03/22/13

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|-----|--------|--|--|--|--|
| Benzene | 0.112 | 0.0050 | mg/kg | 0.100 | 112 | 58-130 | | | | |
| Toluene | 0.123 | 0.0050 | " | 0.100 | 123 | 61-134 | | | | |
| Ethylbenzene | 0.132 | 0.0050 | " | 0.100 | 132 | 74-139 | | | | |
| m,p-Xylene | 0.257 | 0.010 | " | 0.200 | 129 | 73-137 | | | | |
| o-Xylene | 0.126 | 0.0050 | " | 0.100 | 126 | 73-141 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0440 | | " | 0.0397 | 111 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0419 | | " | 0.0400 | 105 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0407 | | " | 0.0400 | 102 | 21-167 | | | | |

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Arvada CO, 80003

Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

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

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

Batch 3032210 - EPA 5030 Soil MS

| LCS (3032210-BS2) | | | | Prepared & Analyzed: 03/22/13 | | | | | | |
|----------------------------------|--------|--------|-------|-------------------------------|------|--------|--|--|--|--|
| Benzene | 0.104 | 0.0050 | mg/kg | 0.100 | 104 | 58-130 | | | | |
| Toluene | 0.112 | 0.0050 | " | 0.100 | 112 | 61-134 | | | | |
| Ethylbenzene | 0.131 | 0.0050 | " | 0.100 | 131 | 74-139 | | | | |
| m,p-Xylene | 0.255 | 0.010 | " | 0.200 | 128 | 73-137 | | | | |
| o-Xylene | 0.125 | 0.0050 | " | 0.100 | 125 | 73-141 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0401 | | " | 0.0397 | 101 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0401 | | " | 0.0400 | 100 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0391 | | " | 0.0400 | 97.7 | 21-167 | | | | |

| LCS Dup (3032210-BSD1) | | | | Prepared & Analyzed: 03/22/13 | | | | | | |
|----------------------------------|--------|--------|-------|-------------------------------|-----|--------|------|----|--|--|
| Benzene | 0.109 | 0.0050 | mg/kg | 0.100 | 109 | 58-130 | 2.61 | 13 | | |
| Toluene | 0.118 | 0.0050 | " | 0.100 | 118 | 61-134 | 4.60 | 16 | | |
| Ethylbenzene | 0.134 | 0.0050 | " | 0.100 | 134 | 74-139 | 1.87 | 12 | | |
| m,p-Xylene | 0.261 | 0.010 | " | 0.200 | 131 | 73-137 | 1.47 | 14 | | |
| o-Xylene | 0.129 | 0.0050 | " | 0.100 | 129 | 73-141 | 1.88 | 12 | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0424 | | " | 0.0397 | 107 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0415 | | " | 0.0400 | 104 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0408 | | " | 0.0400 | 102 | 21-167 | | | | |

| LCS Dup (3032210-BSD2) | | | | Prepared: 03/22/13 Analyzed: 03/23/13 | | | | | | |
|----------------------------------|--------|--------|-------|---------------------------------------|-----|--------|------|----|--|--|
| Benzene | 0.108 | 0.0050 | mg/kg | 0.100 | 108 | 58-130 | 3.70 | 13 | | |
| Toluene | 0.121 | 0.0050 | " | 0.100 | 121 | 61-134 | 7.46 | 16 | | |
| Ethylbenzene | 0.134 | 0.0050 | " | 0.100 | 134 | 74-139 | 2.39 | 12 | | |
| m,p-Xylene | 0.264 | 0.010 | " | 0.200 | 132 | 73-137 | 3.29 | 14 | | |
| o-Xylene | 0.129 | 0.0050 | " | 0.100 | 129 | 73-141 | 3.06 | 12 | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0418 | | " | 0.0397 | 105 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0423 | | " | 0.0400 | 106 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0408 | | " | 0.0400 | 102 | 21-167 | | | | |

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Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

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

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

Batch 3032210 - EPA 5030 Soil MS

| Matrix Spike (3032210-MS1) | Source: R303162-01 | | | Prepared: 03/22/13 | | Analyzed: 03/23/13 | |
|-----------------------------------|---------------------------|--------|-------|--------------------|----|--------------------|--------|
| Benzene | 0.108 | 0.0050 | mg/kg | 0.100 | ND | 108 | 30-131 |
| Toluene | 0.118 | 0.0050 | " | 0.100 | ND | 118 | 30-134 |
| Ethylbenzene | 0.130 | 0.0050 | " | 0.100 | ND | 130 | 22-153 |
| m,p-Xylene | 0.254 | 0.010 | " | 0.200 | ND | 127 | 10-159 |
| o-Xylene | 0.125 | 0.0050 | " | 0.100 | ND | 125 | 31-151 |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0471 | | " | 0.0397 | | 119 | 23-173 |
| Surrogate: Toluene-d8 | 0.0420 | | " | 0.0400 | | 105 | 20-170 |
| Surrogate: 4-Bromofluorobenzene | 0.0406 | | " | 0.0400 | | 102 | 21-167 |

| Matrix Spike (3032210-MS2) | Source: R303162-02 | | | Prepared: 03/22/13 | | Analyzed: 03/23/13 | |
|-----------------------------------|---------------------------|--------|-------|--------------------|----|--------------------|--------|
| Benzene | 0.109 | 0.0050 | mg/kg | 0.100 | ND | 109 | 30-131 |
| Toluene | 0.121 | 0.0050 | " | 0.100 | ND | 121 | 30-134 |
| Ethylbenzene | 0.131 | 0.0050 | " | 0.100 | ND | 131 | 22-153 |
| m,p-Xylene | 0.255 | 0.010 | " | 0.200 | ND | 128 | 10-159 |
| o-Xylene | 0.126 | 0.0050 | " | 0.100 | ND | 126 | 31-151 |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0502 | | " | 0.0397 | | 126 | 23-173 |
| Surrogate: Toluene-d8 | 0.0421 | | " | 0.0400 | | 105 | 20-170 |
| Surrogate: 4-Bromofluorobenzene | 0.0408 | | " | 0.0400 | | 102 | 21-167 |

| Matrix Spike Dup (3032210-MSD1) | Source: R303162-01 | | | Prepared: 03/22/13 | | Analyzed: 03/23/13 | | | |
|--|---------------------------|--------|-------|--------------------|----|--------------------|--------|------|----|
| Benzene | 0.111 | 0.0050 | mg/kg | 0.100 | ND | 111 | 30-131 | 2.27 | 34 |
| Toluene | 0.124 | 0.0050 | " | 0.100 | ND | 124 | 30-134 | 4.65 | 30 |
| Ethylbenzene | 0.135 | 0.0050 | " | 0.100 | ND | 135 | 22-153 | 4.10 | 24 |
| m,p-Xylene | 0.265 | 0.010 | " | 0.200 | ND | 132 | 10-159 | 4.21 | 68 |
| o-Xylene | 0.128 | 0.0050 | " | 0.100 | ND | 128 | 31-151 | 2.60 | 38 |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0467 | | " | 0.0397 | | 118 | 23-173 | | |
| Surrogate: Toluene-d8 | 0.0421 | | " | 0.0400 | | 105 | 20-170 | | |
| Surrogate: 4-Bromofluorobenzene | 0.0412 | | " | 0.0400 | | 103 | 21-167 | | |

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Project: WOC - Peck A-1

Project Number: 0284-13001
 Project Manager: Brian Dodek

Reported:
 04/01/13 11:54

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

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

Batch 3032210 - EPA 5030 Soil MS

| Matrix Spike Dup (3032210-MSD2) | Source: R303162-02 | | | Prepared: 03/22/13 | Analyzed: 03/23/13 | | | | | |
|---|---------------------------|--------|----------|--------------------|--------------------|------------|---------------|------|----|--|
| Benzene | 0.109 | 0.0050 | mg/kg | 0.100 | ND | 109 | 30-131 | 0.00 | 34 | |
| Toluene | 0.119 | 0.0050 | " | 0.100 | ND | 119 | 30-134 | 1.69 | 30 | |
| Ethylbenzene | 0.134 | 0.0050 | " | 0.100 | ND | 134 | 22-153 | 2.28 | 24 | |
| m,p-Xylene | 0.260 | 0.010 | " | 0.200 | ND | 130 | 10-159 | 1.97 | 68 | |
| o-Xylene | 0.128 | 0.0050 | " | 0.100 | ND | 128 | 31-151 | 1.48 | 38 | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>0.0487</i> | | <i>"</i> | <i>0.0397</i> | | <i>123</i> | <i>23-173</i> | | | |
| <i>Surrogate: Toluene-d8</i> | <i>0.0404</i> | | <i>"</i> | <i>0.0400</i> | | <i>101</i> | <i>20-170</i> | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | <i>0.0406</i> | | <i>"</i> | <i>0.0400</i> | | <i>101</i> | <i>21-167</i> | | | |

Summit Scientific

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Project: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

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

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

Batch 3032602 - General Preparation

Blank (3032602-BLK1)

Prepared: 03/26/13 Analyzed: 03/29/13

| | | | | | | | | | | |
|-----------|----|------|-----------|--|--|--|--|--|--|--|
| Calcium | ND | 2.50 | mg/kg wet | | | | | | | |
| Magnesium | ND | 1.00 | " | | | | | | | |
| Sodium | ND | 5.00 | " | | | | | | | |

LCS (3032602-BS1)

Prepared: 03/26/13 Analyzed: 03/29/13

| | | | | | | | | | | |
|-----------|-----|------|-----------|-----|--|------|--------|--|--|---------|
| Calcium | 366 | 2.50 | mg/kg wet | 400 | | 91.4 | 77-118 | | | |
| Magnesium | 245 | 1.00 | " | 200 | | 122 | 77-117 | | | QLCS-04 |
| Sodium | 884 | 5.00 | " | 700 | | 126 | 80-119 | | | QLCS-04 |

LCS Dup (3032602-BSD1)

Prepared: 03/26/13 Analyzed: 03/29/13

| | | | | | | | | | | |
|-----------|-----|------|-----------|-----|--|-----|--------|------|----|---------|
| Calcium | 404 | 2.50 | mg/kg wet | 400 | | 101 | 77-118 | 9.92 | 14 | |
| Magnesium | 214 | 1.00 | " | 200 | | 107 | 77-117 | 13.4 | 12 | QLCS-04 |
| Sodium | 766 | 5.00 | " | 700 | | 109 | 80-119 | 14.3 | 14 | QLCS-04 |

Matrix Spike (3032602-MS1)

Source: R303173-21

Prepared: 03/26/13 Analyzed: 03/29/13

| | | | | | | | | | | |
|-----------|------|------|-----------|-----|-----|------|--------|--|--|--|
| Calcium | 1090 | 3.22 | mg/kg dry | 481 | 796 | 61.5 | 13-170 | | | |
| Magnesium | 317 | 1.29 | " | 240 | 129 | 78.1 | 34-152 | | | |
| Sodium | 1200 | 6.44 | " | 841 | 501 | 83.2 | 43-155 | | | |

Matrix Spike Dup (3032602-MSD1)

Source: R303173-21

Prepared: 03/26/13 Analyzed: 03/29/13

| | | | | | | | | | | |
|-----------|------|------|-----------|-----|-----|------|--------|------|----|--|
| Calcium | 1120 | 3.22 | mg/kg dry | 479 | 796 | 68.4 | 13-170 | 2.87 | 37 | |
| Magnesium | 298 | 1.29 | " | 239 | 129 | 70.3 | 34-152 | 6.30 | 33 | |
| Sodium | 1130 | 6.44 | " | 838 | 501 | 75.2 | 43-155 | 6.03 | 25 | |

Summit Scientific

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 4600 West 60th Avenue
 Arvada CO, 80003

Project: WOC - Peck A-1

Project Number: 0284-13001
 Project Manager: Brian Dodek

Reported:
 04/01/13 11:54

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

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

Batch 3032502 - General Preparation

| | | | | | | | | | | |
|---------------------------------|---------------------------|--|---|--------------------|------|--------------------|--|-------|----|--|
| Duplicate (3032502-DUP1) | Source: R303127-01 | | | Prepared: 03/25/13 | | Analyzed: 03/26/13 | | | | |
| % Solids | 92.5 | | % | | 92.4 | | | 0.108 | 20 | |

Batch 3032808 - General Preparation

| | | | | | | | | | | |
|---------------------------------|---------------------------|---------|----------|-------------------------------|-------|--|--|-------|----|--|
| Duplicate (3032808-DUP1) | Source: R303157-01 | | | Prepared & Analyzed: 03/28/13 | | | | | | |
| Specific Conductance (EC) | 0.902 | 0.00100 | mmhos/cm | | 0.894 | | | 0.891 | 20 | |

Batch 3032809 - General Preparation

| | | | | | | | | | | |
|---------------------------------|---------------------------|--|----------|-------------------------------|-----|--|--|------|------|--|
| Duplicate (3032809-DUP1) | Source: R303157-01 | | | Prepared & Analyzed: 03/28/13 | | | | | | |
| pH | 8.0 | | pH Units | | 8.1 | | | 1.12 | 4.95 | |

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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: WOC - Peck A-1

Project Number: 0284-13001
Project Manager: Brian Dodek

Reported:
04/01/13 11:54

Notes and Definitions

QLCS-04 MS/MSD were analyzed in place of LCS/LCSD.

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