

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

#8373

Received  
3/31/2014

**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.

OGCC Employee:

☒ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No: 2147729

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): ~~No Further Action Request~~

**GENERAL INFORMATION**

<b>OGCC Operator Number:</b> 8960 <b>Name of Operator:</b> Bonanza Creek Energy Operating Company LLC <b>Address:</b> 410 17th Street, Suite 1400 <b>City:</b> Denver <b>State:</b> CO <b>Zip:</b> 80202		<b>Contact Name and Telephone</b> <b>Name:</b> Brian Dodek <b>No:</b> 720-225-6653 <b>Fax:</b> 720-279-2331	
<b>API/Facility No:</b> 05-123-37700 <b>Facility Name:</b> North Platte K-22 Pad <b>Well Name:</b> North Platte Federal <b>Location (QtrQtr, Sec, Twp, Rng, Meridian):</b> NWNE 22-T5N-R63W		<b>County:</b> Weld <b>Facility Number:</b> 433629 <b>Well Number:</b> K-O-22HNB <b>Latitude:</b> 40.391225 <b>Longitude:</b> -104.421929	

**TECHNICAL CONDITIONS**

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

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

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

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Valent Sand

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Surface water and wetlands are greater than one mile from the site. The nearest building is located approximately 4,600 feet southeast of the site. A water well (domestic/stock) is located approximately 4,200 feet southeast of the site

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	120' N-S x 40' E-W x 1.5' bgs	Visual, olfactory and soil sample analytical results
<input type="checkbox"/> Vegetation		
<input type="checkbox"/> Groundwater	Not encountered	
<input type="checkbox"/> Surface water		

**REMEDIATION WORKPLAN**

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

A Form 19 describing the release was submitted to the COGCC on February 18, 2014 (Spill # 2147729). On February 14, 2014, an oil hauler overfilled the truck's tanker, releasing an estimated 21 bbls of oil through the tanker vent outside of secondary containment. Upon discovery of the release, the truck pump was shut off and a vacuum truck was called in to recover pooled liquid from the ground surface. Approximately 19 bbls of oil were recovered by the vacuum truck.

**Describe how source is to be removed:**

Following recovery of the pooled liquid, staining was observed on the ground surface outside of the secondary containment to the east and south of the tank battery. Excavation equipment was used to scrape up the impacted soil until visual and olfactory observations indicated that the petroleum hydrocarbon impacted soil had been excavated. Four confirmation soil samples were collected from the base of the excavation and submitted for laboratory analysis of TPH and BTEX. The laboratory analytical results indicate that TPH and BTEX concentrations are compliant with COGCC Table 910-1 concentration levels at the extent of the excavation (Table 1). Approximately 96 cubic yards (yd<sup>3</sup>) of impacted soil were removed from the excavation and transported to a licensed facility for disposal.

**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 excavated soil was transported to Waste Management's Buffalo Ridge landfill in Keenesburg, Colorado for disposal. The waste manifest summary documenting the disposal activities is attached.

## Oil and Gas Conservation Commission

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## REMEDIATION WORKPLAN (CONT.)

OGCC Employee: R. Allison

Tracking Number: 2147729  
Name of Operator: Bonanza Creek Energy Operating Company LLC  
OGCC Operator No: 8960  
Received Date: 3/31/2014  
Well Name & No: North Platte Federal K-O-22HNB  
Facility Name & No.: North Platte Federal K-22 Pad / 433629

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

Groundwater was not encountered during excavation activities.

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

The Bonanza Creek production facility remains at the site. The excavation area was backfilled with clean soil and restored to its pre-release grade. As the release occurred within the footprint of the tank battery facility, reclamation is not necessary.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

No further investigation is required at this site. Laboratory analytical results for the confirmation soil samples indicate concentration levels of COGCC Table 910-1 contaminants of concern (TPH and BTEX) are below COGCC allowable levels at the extent of the excavation. A copy of the laboratory analytical report is attached. As all impacted material has been removed from the site and disposed of at a licensed disposal facility, Bonanza Creek is requesting a No Further Action determination.

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

The excavated soil (96 yd<sup>3</sup>) was transported to Waste Management's Buffalo Ridge landfill in Keenesburg, Colorado for disposal. The waste manifest summary documenting the disposal activities is attached.

## IMPLEMENTATION SCHEDULE

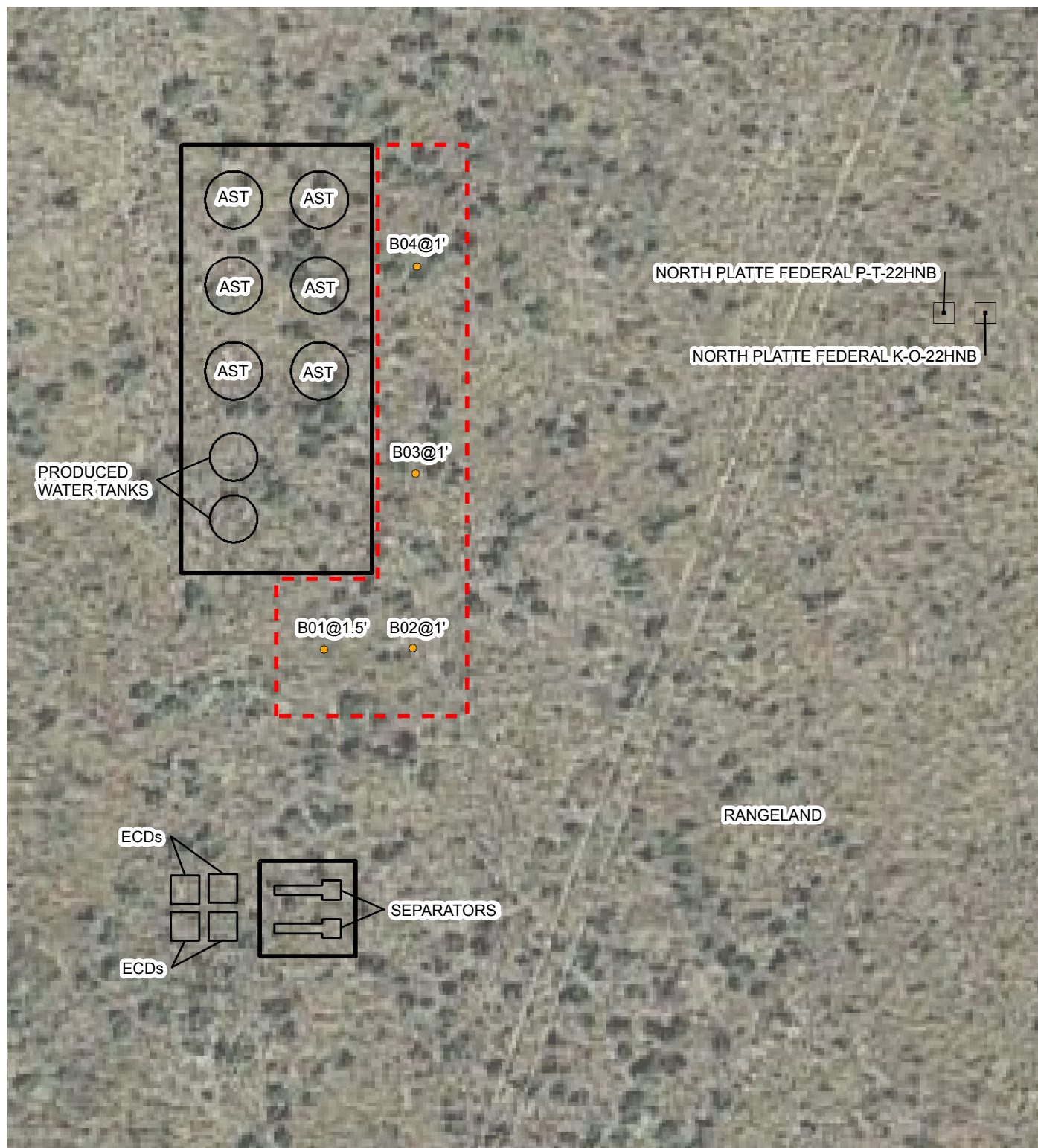
Date Site Investigation Began:	2/14/14	Date Site Investigation Completed:	2/14/14	Remediation Plan Submitted:	3/31/14
Remediation Start Date:	2/14/14	Anticipated Completion Date:	NA	Actual Completion Date:	2/14/14

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

Print Name: Brian Dodek

Signed: Brian Dodek Title: Environmental Specialist Date: 3/31/14

OGCC Approved: \_\_\_\_\_ Title: Northeast EPS Date: 4/21/2014

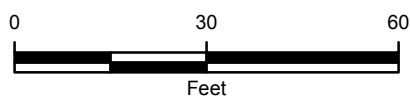


# **LEGEND**

- SOIL SAMPLE
- WELLHEAD
- EXCAVATION EXTENT
- BERM

AST: ABOVEGROUND STORAGE TANK  
 ECD: EMISSION CONTROL DEVICE

IMAGE COURTESY OF GOOGLE EARTH 2013



**FIGURE 1**  
**SITE MAP**  
 NORTH PLATTE FEDERAL K-O-22 HNB  
 NWNE SEC 22-T5N-R63W  
 WELD COUNTY, COLORADO  
**BONANZA CREEK ENERGY OPERATING COMPANY LLC**



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL DATA**  
**NORTH PLATTE FEDERAL K-O-22HNB**  
**BONANZA CREEK ENERGY OPERATING COMPANY LLC**

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL- BENZENE (mg/kg)	XYLENES (Total) (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
B01@1.5'	3/5/2014	1.5	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50
B02@1'	3/5/2014	1	0.0068	0.027	0.0080	0.12	2.8	230
B03@1'	3/5/2014	1	<0.0020	<0.0050	<0.0050	0.0089	1.7	<50
B04@1'	3/5/2014	1	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50
COGCC Allowable Level			0.17	85	100	175	500	

Notes:

bgs - below ground surface

mg/kg - milligrams per kilogram

TPH - Total Petroleum Hydrocarbons

GRO - Gasoline Range Organics

DRO - Diesel Range Organics

< - less than laboratory reporting limit

COGCC - Colorado Oil and Gas Conservation Commission



Operator:



**BC Location:**

## Waste Removal Worksheet

[illegible]

Day Total: Loads / Yards

6 loads / 96 yards

**Job Total: Loads / Yards**

6 loads / 96 yards

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 05, 2014

Justin Solomon

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: BC - North Platte Federal K-O-22

Enclosed are the results of analyses for samples received by Summit Scientific on 03/05/14 16:20. 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: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

**Reported:**  
03/05/14 22:57

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@1.5'	1403026-01	Soil	03/05/14 14:40	03/05/14 16:20
B02@1'	1403026-02	Soil	03/05/14 14:45	03/05/14 16:20
B03@1'	1403026-03	Soil	03/05/14 14:50	03/05/14 16:20
B04@1'	1403026-04	Soil	03/05/14 14:55	03/05/14 16:20

Summit Scientific

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

**Reported:**  
03/05/14 22:57

1403026

Summit Scientific

741 Corporate Circle Suite I ♦ Golden, Colorado 80401  
303-277-9310 ♦ 303-374-5933 Fax

Page | of |

Client  $L\bar{T}\bar{e}$ 

Address: 4600 W 60th Ave Arvada CO

City/State/Zip: \_\_\_\_\_

Phone: 303/433-9788 Fax:

Sampler Name: Kris Shedd

Project Manager: Justin Solomon

E-Mail: [Tsolomay@tcmv.com](mailto:Tsolomay@tcmv.com)

Project Name: North Platte Federal K-0-22

Project Number: 0345

[illegible]

www.s2scientific.com

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

Reported:  
03/05/14 22:57

**B01@1.5'**  
**1403026-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/14 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1403034	03/05/14	03/05/14	8015M	

Date Sampled: **03/05/14 14:40**

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: **03/05/14 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1403033	03/05/14	03/05/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/05/14 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Summit Scientific

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

Reported:  
03/05/14 22:57

**B02@1'**  
**1403026-02 (Soil)**

### Summit Scientific

#### Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/05/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>230</b>	50	mg/kg	1	1403034	03/05/14	03/05/14	8015M	

Date Sampled: **03/05/14 14:45**

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

#### Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/05/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.0068</b>	0.0020	mg/kg	1	1403033	03/05/14	03/05/14	EPA 8260B	
<b>Toluene</b>	<b>0.027</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.0080</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.12</b>	0.0050	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2.8</b>	0.50	"	"	"	"	"	"	

Date Sampled: **03/05/14 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %	21-167		"	"	"	"	

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

Reported:  
03/05/14 22:57

**B03@1'**  
**1403026-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/14 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1403034	03/05/14	03/05/14	8015M	

Date Sampled: **03/05/14 14:50**

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

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/14 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1403033	03/05/14	03/05/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	<b>0.0089</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	<b>1.7</b>	0.50	"	"	"	"	"	"	

Date Sampled: **03/05/14 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		152 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

Reported:  
03/05/14 22:57

**B04@1'**  
**1403026-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/14 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1403034	03/05/14	03/05/14	8015M	

Date Sampled: **03/05/14 14:55**

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

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/14 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1403033	03/05/14	03/05/14	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/05/14 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane- <i>d</i> 4		87.4 %	23-173		"	"	"	"	
Surrogate: Toluene- <i>d</i> 8		63.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

**Reported:**  
03/05/14 22:57

**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 1403034 - EPA 3550A**

**Blank (1403034-BLK1)**

Prepared & Analyzed: 03/05/14

C10-C28 (DRO) ND 50 mg/kg

**LCS (1403034-BS1)**

Prepared & Analyzed: 03/05/14

C10-C28 (DRO) 436 50 mg/kg 467 93.2 73-134

**Matrix Spike (1403034-MS1)**

**Source: 1403023-01**

Prepared & Analyzed: 03/05/14

C10-C28 (DRO) 457 50 mg/kg 480 ND 95.2 50-148

**Matrix Spike Dup (1403034-MSD1)**

**Source: 1403023-01**

Prepared & Analyzed: 03/05/14

C10-C28 (DRO) 490 50 mg/kg 484 ND 101 50-148 7.07 13

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

Project: BC - North Platte Federal K-O-22  
Project Number: 0345  
Project Manager: Justin Solomon

Reported:  
03/05/14 22:57

**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 1403033 - EPA 5030 Soil MS**

**Blank (1403033-BLK1)**

Prepared & Analyzed: 03/05/14

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	0.0375		"	0.0397		94.5	23-173			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

**LCS (1403033-BS1)**

Prepared & Analyzed: 03/05/14

Benzene	0.0854	0.0020	mg/kg	0.0997		85.7	58-130			
Toluene	0.0933	0.0050	"	0.100		93.3	61-134			
Ethylbenzene	0.100	0.0050	"	0.0992		101	74-139			
m,p-Xylene	0.201	0.010	"	0.200		101	73-137			
o-Xylene	0.0985	0.0050	"	0.0988		99.7	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0397		92.4	23-173			
Surrogate: Toluene-d8	0.0378		"	0.0400		94.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		93.9	21-167			

**Matrix Spike (1403033-MS1)**

Source: 1403023-01

Prepared & Analyzed: 03/05/14

Benzene	0.0885	0.0020	mg/kg	0.0995	ND	88.9	30-131			
Toluene	0.0941	0.0050	"	0.0998	ND	94.3	30-134			
Ethylbenzene	0.102	0.0050	"	0.0990	ND	103	22-153			
m,p-Xylene	0.226	0.010	"	0.200	0.0161	105	10-159			
o-Xylene	0.105	0.0050	"	0.0986	0.00500	101	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0396		102	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0399		95.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0399		96.1	21-167			

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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

**Reported:**  
03/05/14 22:57

**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 1403033 - EPA 5030 Soil MS**

Matrix Spike Dup (1403033-MSD1)		Source: 1403023-01			Prepared & Analyzed: 03/05/14					
Benzene	0.0870	0.0020	mg/kg	0.0989	ND	88.0	30-131	1.72	34	
Toluene	0.0937	0.0050	"	0.0992	ND	94.4	30-134	0.470	30	
Ethylbenzene	0.0992	0.0050	"	0.0984	ND	101	22-153	2.47	24	
m,p-Xylene	0.212	0.010	"	0.198	0.0161	98.6	10-159	6.33	68	
o-Xylene	0.103	0.0050	"	0.0980	0.00500	99.8	31-151	1.86	38	
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0394		100	23-173			
Surrogate: Toluene-d8	0.0377		"	0.0397		95.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0397		95.8	21-167			

Summit Scientific

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



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

Project: BC - North Platte Federal K-O-22

Project Number: 0345  
Project Manager: Justin Solomon

**Reported:**  
03/05/14 22:57

### Notes and Definitions

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

A handwritten signature in black ink, appearing to be 'JMS'.