

# Conagra B30-33D

Produced water vault location

## Legend



Conagra B30-33D Water Vault

McClellan 44-20



Google earth

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400 ft





# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

February 10, 2016

Chris Roy  
LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003  
RE: McClellan 44-20

Enclosed are the results of analyses for samples received by Summit Scientific on 02/09/16 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury  
President



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

Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

**Reported:**  
02/10/16 06:52

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@5'	1602056-01	Soil	02/09/16 15:02	02/09/16 18:00
SS05@2'	1602056-02	Soil	02/09/16 15:05	02/09/16 18:00

Summit Scientific

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

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

Project: McClellan 44-20

Project Number: 008316006  
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Reported:  
02/10/16 06:52

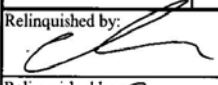
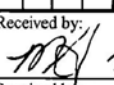
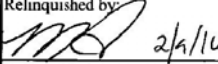
# Summit Scientific 1602656

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

Page 1 of 1

Client: LT Environmental  
Address: 4600 W 60th Avenue  
City/State/Zip:  
Phone: Fax:  
Sampler Name: Chris Rolison

Project Manager: Chris Roy  
E-Mail: croy@ltenv.com / Noble team  
Project Name: McClellan 44-20  
Project Number: 8316006

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:								Special Instructions		
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX	GRO	DRO	EC	pH	SAR				
SS02@5'	2/9/2016	1502	2																		
SS05@2'	2/9/2016	1505	2						X					X	X	X	X	X	X		
Relinquished by:  Date/Time: 2/9/16 1645				Received by:  Date/Time: 2/9/16 1645				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>												Notes:  on ice	
Relinquished by:  Date/Time: 2/9/16 1740				Received by: Date/Time: 				Sample Integrity: Temperature Upon Receipt: 6.4°C Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													
Relinquished by: Date/Time: 				Received in Lab by: Date/Time: 																	

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Arvada CO, 80003

Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

Reported:  
02/10/16 06:52

SS02@5'  
1602056-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 02/09/16 15:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1602090	02/09/16	02/09/16	8015M	

Date Sampled: 02/09/16 15:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.7 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 02/09/16 15:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1602089	02/09/16	02/09/16	EPA 8260B	
Benzene	0.0051	0.0020	"	"	"	"	"	"	
Toluene	0.032	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.050	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 02/09/16 15:02

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		102 %	21-167		"	"	"	"	

Summit Scientific

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

Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

**Reported:**  
02/10/16 06:52

**SS05@2'**  
**1602056-02 (Soil)**

### Summit Scientific

#### Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1602090	02/09/16	02/09/16	8015M	

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.3 %	30-150		"	"	"	"	

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

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1602089	02/09/16	02/09/16	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.0092</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.017</b>	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

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

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO, 80003

Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

**Reported:**  
02/10/16 06:52

**SS05@2'**  
**1602056-02 (Soil)**

**Summit Scientific**

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

Calcium	333	11.5 mg/kg dry	1	1602091	02/09/16	02/09/16	EPA 6020/Mod. USDA60 6(2, 3A)
Magnesium	352	5.74	"	"	"	"	"
Sodium	103	5.74	"	"	"	"	"

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.940		units	"	1602093	02/10/16	02/10/16	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.155	0.0100	mmhos/cm	1	1602088	02/09/16	02/09/16	SM 2510B	

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.77	0.100	pH Units	"	1602087	02/09/16	02/09/16	EPA 9045	

Date Sampled: 02/09/16 15:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.1		%	"	1602092	02/10/16	02/10/16	% calculation	

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Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

Reported:  
02/10/16 06:52

**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 1602090 - EPA 3550A**

**Blank (1602090-BLK1)**

Prepared & Analyzed: 02/09/16

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 11.5 " 12.5 91.8 30-150

**LCS (1602090-BS1)**

Prepared & Analyzed: 02/09/16

C10-C28 (DRO) 480 50 mg/kg 499 96.1 73-134

Surrogate: o-Terphenyl 12.5 " 12.5 100 30-150

**Matrix Spike (1602090-MS1)**

Source: 1602057-09

Prepared & Analyzed: 02/09/16

C10-C28 (DRO) 422 50 mg/kg 464 18.1 87.1 50-148

Surrogate: o-Terphenyl 10.7 " 11.6 92.3 30-150

**Matrix Spike Dup (1602090-MSD1)**

Source: 1602057-09

Prepared & Analyzed: 02/09/16

C10-C28 (DRO) 428 50 mg/kg 468 18.1 87.6 50-148 1.44 13

Surrogate: o-Terphenyl 10.8 " 11.7 91.7 30-150

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4600 West 60th Avenue  
Arvada CO, 80003

Project: McClellan 44-20  
Project Number: 008316006  
Project Manager: Chris Roy

Reported:  
02/10/16 06:52

**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 1602089 - EPA 5030 Soil MS**

**Blank (1602089-BLK1)**

Prepared & Analyzed: 02/09/16

Naphthalene	ND	0.010	mg/kg							
Benzene	ND	0.0020	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0362		"	0.0400		90.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	21-167			

**LCS (1602089-BS1)**

Prepared & Analyzed: 02/09/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0778	0.0020	"	0.100		77.8	58-130			
Toluene	0.0859	0.0050	"	0.100		85.9	61-134			
Ethylbenzene	0.102	0.0050	"	0.0992		103	74-139			
m,p-Xylene	0.208	0.010	"	0.200		104	73-137			
o-Xylene	0.0939	0.0050	"	0.0984		95.4	73-141			
Surrogate: 1,2-Dichloroethane-d4	0.0432		"	0.0400		108	23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.2	21-167			

**Matrix Spike (1602089-MS1)**

Source: 1602057-09

Prepared & Analyzed: 02/09/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0751	0.0020	"	0.0954	ND	78.8	30-131			
Toluene	0.0876	0.0050	"	0.0954	ND	91.8	30-134			
Ethylbenzene	0.103	0.0050	"	0.0947	ND	109	22-153			
m,p-Xylene	0.215	0.010	"	0.190	ND	113	10-159			
o-Xylene	0.0953	0.0050	"	0.0939	ND	101	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0382		107	23-173			
Surrogate: Toluene-d8	0.0369		"	0.0382		96.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0382		101	21-167			

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Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

Reported:  
02/10/16 06:52

**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 1602089 - EPA 5030 Soil MS**

Matrix Spike Dup (1602089-MSD1)		Source: 1602057-09			Prepared & Analyzed: 02/09/16					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0765	0.0020	"	0.0958	ND	79.9	30-131	1.82	34	
Toluene	0.108	0.0050	"	0.0958	ND	112	30-134	20.5	30	
Ethylbenzene	0.102	0.0050	"	0.0950	ND	108	22-153	0.931	24	
m,p-Xylene	0.255	0.010	"	0.191	ND	133	10-159	16.9	68	
o-Xylene	0.0996	0.0050	"	0.0943	ND	106	31-151	4.44	38	
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0383		110	23-173			
Surrogate: Toluene-d8	0.0357		"	0.0383		93.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0383		96.5	21-167			

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02/10/16 06:52

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

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

**Batch 1602091 - General Preparation**

**Blank (1602091-BLK1)**

Prepared & Analyzed: 02/09/16

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

**LCS (1602091-BS1)**

Prepared & Analyzed: 02/09/16

Calcium	545	10.0	mg/kg wet	500	109	82.9-118
Magnesium	518	5.00	"	500	104	77.1-123
Sodium	507	5.00	"	500	101	71-129

**Duplicate (1602091-DUP1)**

Source: 1602056-02

Prepared & Analyzed: 02/09/16

Calcium	334	11.5	mg/kg dry	333	0.489	200
Magnesium	323	5.74	"	352	8.46	200
Sodium	39.7	5.74	"	103	88.6	200

**Matrix Spike (1602091-MS1)**

Source: 1602056-02

Prepared & Analyzed: 02/09/16

Calcium	815	11.5	mg/kg dry	574	333	84.1	75-125
Magnesium	865	5.74	"	574	352	89.3	75-125
Sodium	605	5.74	"	574	103	87.5	75-125

**Matrix Spike Dup (1602091-MSD1)**

Source: 1602056-02

Prepared & Analyzed: 02/09/16

Calcium	863	11.5	mg/kg dry	574	333	92.3	75-125	5.62	25
Magnesium	875	5.74	"	574	352	91.0	75-125	1.11	25
Sodium	620	5.74	"	574	103	90.1	75-125	2.40	25

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Project: McClellan 44-20

Project Number: 008316006  
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Reported:  
02/10/16 06:52

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

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

Batch 1602087 - General Preparation

LCS (1602087-BS1)

Prepared & Analyzed: 02/09/16

pH	6.05	0.100	pH Units	60.0	10.1	95-105
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Duplicate (1602087-DUP1)

Source: 1602056-02

Prepared & Analyzed: 02/09/16

pH	6.95	0.100	pH Units	6.77	2.62	20
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Batch 1602088 - General Preparation

Blank (1602088-BLK1)

Prepared & Analyzed: 02/09/16

Specific Conductance (EC)	ND	0.0100	mmhos/cm
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LCS (1602088-BS1)

Prepared & Analyzed: 02/09/16

Specific Conductance (EC)	0.500	0.0100	mmhos/cm	0.500	100	90-110
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Duplicate (1602088-DUP1)

Source: 1602056-02

Prepared & Analyzed: 02/09/16

Specific Conductance (EC)	0.183	0.0100	mmhos/cm	0.155	16.4	20
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4600 West 60th Avenue  
Arvada CO, 80003

Project: McClellan 44-20

Project Number: 008316006  
Project Manager: Chris Roy

**Reported:**  
02/10/16 06:52

### 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

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