

Conagra B30-33D

Produced water vault location

Legend

 Conagra B30-33D Water Vault

McClellan 44-20 



Summit Scientific

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,



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

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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

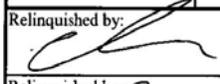
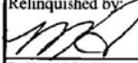
Reported:
02/10/16 06:52

Summit Scientific 1602656

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

Page 1 of 1

Client: <u>LT Environmental</u>	Project Manager: <u>Chris Roy</u>
Address: <u>4600 W 60th Avenue</u>	E-Mail: <u>croy@ltenv.com / Noble team</u>
City/State/Zip: _____	Project Name: <u>McClellan 44-20</u>
Phone: _____ Fax: _____	Project Number: <u>8316006</u>
Sampler Name: <u>Chris Rolison</u>	

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)	BTEX	GRO	DRO	EC	pH		SAR			
SS02@5'	2/9/2016	1502	2					X				X	X								
SS05@2'	2/9/2016	1505	2					X				X	X	X	X	X	X				
Relinquished by: 		Date/Time: 2/9/16 1045		Received by: 		Date/Time: 2/9/16 1645		Turn Around Time (Check)			Notes:										
Relinquished by: 		Date/Time: 2/9/16 1740		Received by: _____		Date/Time: _____		Same Day <input checked="" type="checkbox"/>			72 Hours <input type="checkbox"/>										
Relinquished by: _____		Date/Time: _____		Received in Lab by: _____		Date/Time: _____		24 Hours <input type="checkbox"/>			Standard <input type="checkbox"/>										
Relinquished by: _____		Date/Time: _____		Received in Lab by: _____		Date/Time: _____		48 Hours <input type="checkbox"/>			Sample Integrity: Temperature Upon Receipt: 6.4°C										
								Intact: Yes <input checked="" type="checkbox"/>			No <input type="checkbox"/>										

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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

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: <i>o</i> -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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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: <i>o</i> -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	"	"	"	"	"	"	
Toluene	0.0092	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.017	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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch 1602090 - EPA 3550A

Blank (1602090-BLK1)

Prepared & Analyzed: 02/09/16

C10-C28 (DRO)	ND	50	mg/kg								
<i>Surrogate: o-Terphenyl</i>	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				
<i>Surrogate: o-Terphenyl</i>	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				
<i>Surrogate: o-Terphenyl</i>	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	
<i>Surrogate: o-Terphenyl</i>	10.8		"	11.7		91.7	30-150				

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4600 West 60th Avenue
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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0362</i>		<i>"</i>	<i>0.0400</i>		<i>90.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.7</i>	<i>21-167</i>			

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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0432</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.3</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.2</i>	<i>21-167</i>			

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			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0409</i>		<i>"</i>	<i>0.0382</i>		<i>107</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0369</i>		<i>"</i>	<i>0.0382</i>		<i>96.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0386</i>		<i>"</i>	<i>0.0382</i>		<i>101</i>	<i>21-167</i>			

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Project: McClellan 44-20

Project Number: 008316006
Project Manager: Chris Roy

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02/10/16 06:52

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 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	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	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0421</i>		<i>"</i>	<i>0.0383</i>		<i>110</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0357</i>		<i>"</i>	<i>0.0383</i>		<i>93.2</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0370</i>		<i>"</i>	<i>0.0383</i>		<i>96.5</i>	<i>21-167</i>			

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Project: McClellan 44-20

Project Number: 008316006
Project Manager: Chris Roy

Reported:
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 Level	Source		%REC		RPD		Notes
	Result	Limit		Units	Result	%REC	Limits	RPD	Limit	

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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02/10/16 06:52

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 1602087 - General Preparation

LCS (1602087-BS1)					Prepared & Analyzed: 02/09/16					
pH	6.05	0.100	pH Units	60.0	10.1	95-105				
Duplicate (1602087-DUP1)					Source: 1602056-02 Prepared & Analyzed: 02/09/16					
pH	6.95	0.100	pH Units	6.77	2.62	20				

Batch 1602088 - General Preparation

Blank (1602088-BLK1)					Prepared & Analyzed: 02/09/16					
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (1602088-BS1)					Prepared & Analyzed: 02/09/16					
Specific Conductance (EC)	0.500	0.0100	mmhos/cm	0.500	100	90-110				
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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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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