



LEGEND

	FENCE LINE
	CONTAINMENT WALL
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1
SITE MAP

Noble Sauer 33-2, G4-28D, G4-29D
Facility ID - 327497
SW SW Section 33, T5N, R65W
Weld County, Colorado

API No.
05-123-14773

Prepared by

Drawn by
JMA

Date
4/14/16

Reviewed by

Filename
V017A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 08, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020

RE: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Enclosed are the results of analyses for samples received by Summit Scientific on 03/07/16 14:11. 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



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Floor 4Ft	1603047-01	Soil	03/07/16 00:00	03/07/16 14:11
W. Wall 2Ft	1603047-02	Soil	03/07/16 00:00	03/07/16 14:11

Summit Scientific

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



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

Summit Scientific 1603047

S₂

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

Page 1 of 1

Client: FREMONT/NOBLE

Project Manager: HENEHAN

Address:

E-Mail:

City/State/Zip:

Phone: 303 956 8714

Fax:

Project Name: SAUER - 33-2, G4-28D, G4-29D, F33-25, F33-33

Sampler Name: HENEHAN

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	GRD/DOS	ANION/TH	SAR	EC		PLT
1	FLOOR 4 FT	3/7/16		1															
2	W. WALL 2 FT	"		1															
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>DL/FE</u>	Date/Time: <u>3/7/16 14:11</u>	Received by: <u>DA</u>	Date/Time: <u>3-7-16 14:11</u>	Turn Around Time (Check)	Notes:
Relinquished by: <u>DA</u>	Date/Time: <u>3-7-16 17:50</u>	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/> 72 hours	24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/> TUES. AM PLZ. Sample Integrity: Temperature Upon Receipt: <u>17.1"</u> Intact: <input checked="" type="checkbox"/> Yes No
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input type="checkbox"/> TUES. AM PLZ.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input type="checkbox"/> TUES. AM PLZ.	

www.s2scientific.com

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

Floor 4Ft
1603047-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603060	03/07/16	03/07/16	8015M	

Date Sampled: 03/07/16 00:00

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

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603059	03/07/16	03/07/16	EPA 8260B	
Benzene	0.074	0.0020	"	"	"	"	"	"	
Toluene	0.045	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.053	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

**W. Wall 2Ft
1603047-02 (Soil)**

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/07/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603060	03/07/16	03/07/16	8015M	

Date Sampled: **03/07/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/07/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603059	03/07/16	03/07/16	EPA 8260B	
Benzene	0.022	0.0020	"	"	"	"	"	"	
Toluene	0.047	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.053	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **03/07/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

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

Date Sampled: **03/07/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

**W. Wall 2Ft
1603047-02 (Soil)**

Summit Scientific

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

Calcium	1450	13.6 mg/kg dry	1	1603065	03/07/16	03/07/16	EPA 6020/Mod. USDA60 6(2, 3A)
Magnesium	1360	6.78	"	"	"	"	"
Sodium	253	6.78	"	"	"	"	"

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.15		units	"	1603070	03/08/16	03/08/16	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.879	0.0100 mmhos/cm		1	1603067	03/07/16	03/07/16	SM 2510B	

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.11	0.100 pH Units		"	1603066	03/07/16	03/07/16	EPA 9045	

Date Sampled: 03/07/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	73.7		%	"	1603069	03/08/16	03/08/16	% calculation	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

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 1603060 - EPA 3550A

Blank (1603060-BLK1)

Prepared & Analyzed: 03/07/16

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 14.0 " 12.5 112 30-150

LCS (1603060-BS1)

Prepared & Analyzed: 03/07/16

C10-C28 (DRO) 453 50 mg/kg 499 90.8 73-134

Surrogate: o-Terphenyl 14.8 " 12.5 118 30-150

Matrix Spike (1603060-MS1)

Source: 1603037-01

Prepared & Analyzed: 03/07/16

C10-C28 (DRO) 426 50 mg/kg 498 20.7 81.3 50-148

Surrogate: o-Terphenyl 14.7 " 12.5 118 30-150

Matrix Spike Dup (1603060-MSD1)

Source: 1603037-01

Prepared & Analyzed: 03/07/16

C10-C28 (DRO) 404 50 mg/kg 471 20.7 81.5 50-148 5.12 13

Surrogate: o-Terphenyl 15.1 " 11.8 128 30-150

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D
Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

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 1603059 - EPA 5030 Soil MS

Blank (1603059-BLK1)

Prepared & Analyzed: 03/07/16

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	0.0406		"	0.0396	103	23-173				
Surrogate: Toluene-d8	0.0396		"	0.0400	99.0	20-170				
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400	102	21-167				

LCS (1603059-BS1)

Prepared & Analyzed: 03/07/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0902	0.0020	"	0.100	90.2	58-130				
Toluene	0.0936	0.0050	"	0.100	93.6	61-134				
Ethylbenzene	0.0963	0.0050	"	0.0992	97.1	74-139				
m,p-Xylene	0.179	0.010	"	0.200	89.4	73-137				
o-Xylene	0.0882	0.0050	"	0.0984	89.7	73-141				
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0396	95.5	23-173				
Surrogate: Toluene-d8	0.0437		"	0.0400	109	20-170				
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400	100	21-167				

Matrix Spike (1603059-MS1)

Source: 1603037-01

Prepared & Analyzed: 03/07/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0866	0.0020	"	0.0935	ND	92.6	30-131			
Toluene	0.0959	0.0050	"	0.0935	ND	103	30-134			
Ethylbenzene	0.104	0.0050	"	0.0927	ND	113	22-153			
m,p-Xylene	0.193	0.010	"	0.187	ND	103	10-159			
o-Xylene	0.0947	0.0050	"	0.0920	ND	103	31-151			
Surrogate: 1,2-Dichloroethane-d4	0.0345		"	0.0370	93.1	23-173				
Surrogate: Toluene-d8	0.0385		"	0.0374	103	20-170				
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0374	99.4	21-167				

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

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 1603059 - EPA 5030 Soil MS

Matrix Spike Dup (1603059-MSD1)		Source: 1603037-01			Prepared & Analyzed: 03/07/16					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0996	0.0020	"	0.0936	ND	106	30-131	14.0	34	
Toluene	0.104	0.0050	"	0.0936	ND	111	30-134	8.40	30	
Ethylbenzene	0.115	0.0050	"	0.0929	ND	123	22-153	9.44	24	
m,p-Xylene	0.210	0.010	"	0.187	ND	112	10-159	8.40	68	
o-Xylene	0.105	0.0050	"	0.0921	ND	114	31-151	10.4	38	
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0371		106	23-173			
Surrogate: Toluene-d8	0.0379		"	0.0375		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0372		"	0.0375		99.4	21-167			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D
Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

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 1603065 - General Prep

Blank (1603065-BLK1)

Prepared & Analyzed: 03/07/16

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

LCS (1603065-BS1)

Prepared & Analyzed: 03/07/16

Calcium	572	10.0	mg/kg wet	500	114	82.9-118
Magnesium	535	5.00	"	500	107	77.1-123
Sodium	555	5.00	"	500	111	71-129

Duplicate (1603065-DUP1)

Source: 1603047-02

Prepared & Analyzed: 03/07/16

Calcium	1360	13.6	mg/kg dry	1450	6.66	200
Magnesium	1210	6.78	"	1360	12.0	200
Sodium	258	6.78	"	253	1.94	200

Matrix Spike (1603065-MS1)

Source: 1603047-02

Prepared & Analyzed: 03/07/16

Calcium	1810	13.6	mg/kg dry	678	1450	52.4	75-125	QM-07
Magnesium	1880	6.78	"	678	1360	76.6	75-125	
Sodium	932	6.78	"	678	253	100	75-125	

Matrix Spike Dup (1603065-MSD1)

Source: 1603047-02

Prepared & Analyzed: 03/07/16

Calcium	1950	13.6	mg/kg dry	678	1450	73.3	75-125	7.56	25	QM-07
Magnesium	1820	6.78	"	678	1360	67.3	75-125	3.42	25	QM-07
Sodium	1020	6.78	"	678	253	114	75-125	9.45	25	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

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 1603066 - General Preparation

LCS (1603066-BS1)

Prepared & Analyzed: 03/07/16

pH	6.08	0.100	pH Units	6.00	101	95-105
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Duplicate (1603066-DUP1)

Source: 1603047-02

Prepared & Analyzed: 03/07/16

pH	8.03	0.100	pH Units	8.11	0.991	20
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Batch 1603067 - General Preparation

Blank (1603067-BLK1)

Prepared & Analyzed: 03/07/16

Specific Conductance (EC)	ND	0.0100	mmhos/cm
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LCS (1603067-BS1)

Prepared & Analyzed: 03/07/16

Specific Conductance (EC)	0.0984	0.00200	mmhos/cm	0.100	98.4	90-110
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Duplicate (1603067-DUP1)

Source: 1603047-02

Prepared & Analyzed: 03/07/16

Specific Conductance (EC)	0.891	0.0100	mmhos/cm	0.879	1.30	20
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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Sauer - 33-2, F33-25, F33-33, G04-28D, G04-29D

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/08/16 07:38

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Summit Scientific

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