



LEGEND

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

**Figure 1
SITE MAP**

Noble Four C Land & Cattle #2
 Facility ID - 322813
 NE SW Section 32, T6N, R66W
 Weld County, Colorado

API No. 05-123-12097	Prepared by	Drawn by JMA
Date 4/28/17	Reviewed by	Filename V124A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

May 02, 2017

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020

RE: Noble - four C Land & Cattle #2

Enclosed are the results of analyses for samples received by Summit Scientific on 04/25/17 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N Wall 3 FT	1704246-01	Soil	04/24/17 00:00	04/25/17 16:00
Floor 6FT	1704246-02	Soil	04/24/17 00:00	04/25/17 16:00

Summit Scientific

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

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S₂

1704240

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

Page : of 1

Client: Fremont Environmental Project Manager: Paul Henehan
Address: P.O. Box 1289 E-Mail: paulh@fremontenv.com
City/State/Zip: PO Box 1829 Wellington, CO 80549
Phone: 303-956-8714 Fax: Project Name: Noble - Four C Land & Cattle #2
Sampler Name: 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	GRO/DRO	Naphthalene	SAR	EC	Ph		
1	N. WALL 3 FT	4/24/17		1			✓			✓				✓	✓	✓	✓	✓		
2	FLOOR 6 FT			1			✓			✓				✓	✓	✓	✓	✓		
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: <u>PAUL HENEHAN</u>	Date/Time: <u>4/24/17 16:00</u>	Received by: <u>MCA</u>	Date/Time: <u>4/24/17 16:00</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <u>13.1°C</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes: on ice
Relinquished by: <u>MCA</u>	Date/Time: <u>4/25/17 1745</u>	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

www.s2scientific.com



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

Sample Receipt Checklist

S2 Work Order: 1701245

Client: Fremont Env. Client Project ID: Noble - Four C Land & Cattle #2

Shipped Via: Hand (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____ (Describe)

Cooler ID				
Temp (°C)	<u>13.1</u>			

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to < 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			<u>on ice</u>
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? if yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

Jakita
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

4/24/17 1030
Date/Time

[Signature]



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

N Wall 3 FT
1704246-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	73	50	mg/kg	1	1704276	04/26/17	04/27/17	8015M	

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		118 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1704280	04/26/17	04/28/17	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		116 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		109 %	21-167		"	"	"	"	

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

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2620	11.9	mg/kg dry	1	1704295	04/27/17	04/27/17	EPA 6020/Mod. USDA60 6(2, 3A)	

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

**N Wall 3 FT
1704246-01 (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	1060	5.93	mg/kg dry	1	1704295	04/27/17	04/27/17	EPA 6020/Mod. USDA60 6(2, 3A)	
Sodium	116	5.93	"	"	"	"	"	"	
Sodium Adsorption Ratio	0.483		units	"	1704308	04/28/17	04/28/17	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.39	0.100	pH Units	1	1704270	04/26/17	04/26/17	EPA 9045	
Specific Conductance (EC)	0.865	0.0100	mmhos/cm	"	1704272	04/26/17	04/26/17	SM 2510B	
% Solids	84.3		%	"	1704273	04/26/17	04/28/17	% calculation	

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Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

Floor 6FT
1704246-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1704276	04/26/17	04/27/17	8015M	

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		120 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1704280	04/26/17	04/28/17	EPA 8260B	
Benzene	ND	0.0020	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **04/24/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

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Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

Extractable 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 1704276 - EPA 3550A

Blank (1704276-BLK1)

Prepared & Analyzed: 04/26/17

C10-C28 (DRO)	ND	50	mg/kg							
<i>Surrogate: o-Terphenyl</i>	14.9		"	12.5		119	30-150			

LCS (1704276-BS1)

Prepared & Analyzed: 04/26/17

C10-C28 (DRO)	497	50	mg/kg	499		99.5	73-134			
<i>Surrogate: o-Terphenyl</i>	14.7		"	12.5		118	30-150			

Matrix Spike (1704276-MS1)

Source: 1704222-01

Prepared & Analyzed: 04/26/17

C10-C28 (DRO)	520	50	mg/kg	499	28.4	98.6	50-148			
<i>Surrogate: o-Terphenyl</i>	15.0		"	12.5		120	30-150			

Matrix Spike Dup (1704276-MSD1)

Source: 1704222-01

Prepared: 04/26/17 Analyzed: 04/27/17

C10-C28 (DRO)	513	50	mg/kg	499	28.4	97.2	50-148	1.33	20	
<i>Surrogate: o-Terphenyl</i>	14.8		"	12.5		118	30-150			

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Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

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

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

Batch 1704280 - EPA 5030 Soil MS

Blank (1704280-BLK1)

Prepared: 04/26/17 Analyzed: 04/27/17

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>0.0430</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>		<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.8</i>		<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0435</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>		<i>21-167</i>			

LCS (1704280-BS1)

Prepared: 04/26/17 Analyzed: 04/27/17

Naphthalene	0.00765	0.010	mg/kg					66-138			
Benzene	0.0664	0.0020	"	0.100		66.4		58-130			
Toluene	0.0770	0.0050	"	0.100		77.0		61-134			
Ethylbenzene	0.0835	0.0050	"	0.0992		84.2		74-139			
m,p-Xylene	0.157	0.010	"	0.200		78.5		73-137			
o-Xylene	0.0789	0.0050	"	0.0980		80.5		73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0457</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>		<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0403</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>		<i>21-167</i>			

Matrix Spike (1704280-MS1)

Source: 1704222-01

Prepared: 04/26/17 Analyzed: 04/27/17

Naphthalene	0.00732	0.010	mg/kg		0.00648			10-158			
Benzene	0.0674	0.0020	"	0.100	ND	67.4		30-131			
Toluene	0.0791	0.0050	"	0.100	ND	79.1		30-134			
Ethylbenzene	0.0867	0.0050	"	0.0992	ND	87.4		22-153			
m,p-Xylene	0.164	0.010	"	0.200	ND	82.0		10-159			
o-Xylene	0.0819	0.0050	"	0.0980	ND	83.6		31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0444</i>		<i>"</i>	<i>0.0400</i>		<i>111</i>		<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.8</i>		<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0436</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>		<i>21-167</i>			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

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

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

Batch 1704280 - EPA 5030 Soil MS

Matrix Spike Dup (1704280-MSD1)	Source: 1704222-01			Prepared: 04/26/17		Analyzed: 04/27/17			
Naphthalene	0.00687	0.010	mg/kg	0.00648	10-158	6.34	42		
Benzene	0.0674	0.0020	"	0.100	ND	67.4	30-131	0.0445	34
Toluene	0.0794	0.0050	"	0.100	ND	79.4	30-134	0.379	30
Ethylbenzene	0.0866	0.0050	"	0.0992	ND	87.2	22-153	0.173	24
m,p-Xylene	0.165	0.010	"	0.200	ND	82.8	10-159	0.912	68
o-Xylene	0.0836	0.0050	"	0.0980	ND	85.3	31-151	1.99	38
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0455</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>	<i>23-173</i>		
<i>Surrogate: Toluene-d8</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.4</i>	<i>20-170</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0429</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>21-167</i>		

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Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

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 1704295 - General Preparation

Blank (1704295-BLK1)

Prepared & Analyzed: 04/27/17

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

LCS (1704295-BS1)

Prepared & Analyzed: 04/27/17

Calcium	534	10.0	mg/kg wet	500	107	82.9-118				
Magnesium	516	5.00	"	500	103	77.1-123				
Sodium	533	5.00	"	500	107	71-129				

Duplicate (1704295-DUP1)

Source: 1704246-01

Prepared & Analyzed: 04/27/17

Calcium	2630	11.9	mg/kg dry	2620			0.319	200		
Magnesium	991	5.93	"	1060			7.13	200		
Sodium	81.9	5.93	"	116			34.5	200		

Matrix Spike (1704295-MS1)

Source: 1704246-01

Prepared & Analyzed: 04/27/17

Calcium	3080	11.9	mg/kg dry	593	2620	78.0	75-125			
Magnesium	1620	5.93	"	593	1060	93.8	75-125			
Sodium	711	5.93	"	593	116	100	75-125			

Matrix Spike Dup (1704295-MSD1)

Source: 1704246-01

Prepared & Analyzed: 04/27/17

Calcium	3100	11.9	mg/kg dry	593	2620	80.5	75-125	0.491	25	
Magnesium	1510	5.93	"	593	1060	75.4	75-125	6.98	25	
Sodium	686	5.93	"	593	116	96.2	75-125	3.59	25	

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Project Number: [none]
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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 1704270 - General Preparation

LCS (1704270-BS1)					Prepared & Analyzed: 04/26/17						
pH	8.00	0.100	pH Units	8.00	100	95-105					
Duplicate (1704270-DUP1)					Source: 1704236-21		Prepared & Analyzed: 04/26/17				
pH	8.15	0.100	pH Units	8.17	0.245	20					

Batch 1704272 - General Preparation

Blank (1704272-BLK1)					Prepared & Analyzed: 04/26/17						
Specific Conductance (EC)	ND	0.0100	mmhos/cm								
LCS (1704272-BS1)					Prepared & Analyzed: 04/26/17						
Specific Conductance (EC)	0.750	0.0100	mmhos/cm	0.750	100	90-110					
Duplicate (1704272-DUP1)					Source: 1704236-21		Prepared & Analyzed: 04/26/17				
Specific Conductance (EC)	0.230	0.0100	mmhos/cm	0.240	4.12	20					

Batch 1704273 - General Preparation

Duplicate (1704273-DUP1)					Source: 1704236-34		Prepared: 04/26/17 Analyzed: 04/28/17				
% Solids	89.6		%	89.4	0.166	20					

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - four C Land & Cattle #2

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/02/17 15:02

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