



#### LEGEND

	FENCE LINE
	CONTAINMENT BERM
	ABOVE GROUND STORAGE TANK
	FORMER FACILITY

Figure 1  
SITE MAP

**Noble Dinner K 13-2**  
Facility ID - 328933  
NW NE Section 13, T4N, R66W  
Weld County, Colorado

API No.  
**05-123-16641**

Prepared by

Drawn by  
**JMA**

Date  
**4/14/16**

Reviewed by

Filename  
**V019A**



# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 22, 2016

Paul Henehan  
Fremont Environmental  
1759 Redwing Lane  
Broomfield, CO 80020  
RE: Noble - Dinner K 13-2

Enclosed are the results of analyses for samples received by Summit Scientific on 03/21/16 17:40. 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: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
03/22/16 06:59

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Floor 5'	1603143-01	Soil	03/21/16 00:00	03/21/16 17:40
N. Wall 3'	1603143-02	Soil	03/21/16 00:00	03/21/16 17:40

Summit Scientific

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

# Summit Scientific 1603143

S<sub>2</sub>

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: NOBLE - DINNER K 13-2

Sampler Name: HENEHAN

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX	GLD/DRO	NPHTH	SAR	EC	PH	
1	FLOOR 5 FT	3/21/16		1			✓			✓				✓	✓	✓	✓	✓	
2	HL WALK 3 FT	"		1			✓			✓				✓	✓	✓	✓	✓	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>PHH</u>	Date/Time: <u>3/21/16 12:28</u>	Received by: <u>PHH</u>	Date/Time: <u>3-21-16 14:45</u>	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"/> <u>TUES. AM PR.</u>	Notes:
Relinquished by: <u>PHH</u>	Date/Time: <u>3-21-16 17:40</u>	Received by: <u>PHH</u>	Date/Time: <u>3-21-16 1740</u>	Sample Integrity: Temperature Upon Receipt: <u>23.2</u>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

www.s2scientific.com

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
03/22/16 06:59

**Floor 5'**  
**1603143-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603214	03/21/16	03/21/16	8015M	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

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

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603213	03/21/16	03/21/16	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: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

**N. Wall 3'**  
**1603143-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1603214	03/21/16	03/21/16	8015M	

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		110 %	30-150		"	"	"	"	

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

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1603213	03/21/16	03/21/16	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: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %	21-167		"	"	"	"	

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

Date Sampled: **03/21/16 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

**N. Wall 3'**  
**1603143-02 (Soil)**

**Summit Scientific**

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

Calcium	1090	10.7 mg/kg dry	1	1603217	03/21/16	03/21/16	EPA 6020/Mod. USDA60 6(2, 3A)
Magnesium	155	5.36	"	"	"	"	"
Sodium	58.3	5.36	"	"	"	"	"

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.440		units	"	1603221	03/22/16	03/22/16	"	

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

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.612	0.0100	mmhos/cm	1	1603216	03/21/16	03/21/16	SM 2510B	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.59	0.100	pH Units	"	1603215	03/21/16	03/21/16	EPA 9045	

Date Sampled: 03/21/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.2		%	"	1603220	03/22/16	03/22/16	% calculation	

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
03/22/16 06:59

**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 1603214 - EPA 3550A**

**Blank (1603214-BLK1)**

Prepared & Analyzed: 03/21/16

C10-C28 (DRO) ND 50 mg/kg

Surrogate: o-Terphenyl 15.1 " 12.5 121 30-150

**LCS (1603214-BS1)**

Prepared & Analyzed: 03/21/16

C10-C28 (DRO) 518 50 mg/kg 499 104 73-134

Surrogate: o-Terphenyl 14.6 " 12.5 117 30-150

**Matrix Spike (1603214-MS1)**

Source: 1603143-01

Prepared & Analyzed: 03/21/16

C10-C28 (DRO) 446 50 mg/kg 461 14.2 93.7 50-148

Surrogate: o-Terphenyl 13.3 " 11.6 115 30-150

**Matrix Spike Dup (1603214-MSD1)**

Source: 1603143-01

Prepared & Analyzed: 03/21/16

C10-C28 (DRO) 461 50 mg/kg 441 14.2 101 50-148 3.34 13

Surrogate: o-Terphenyl 13.6 " 11.0 124 30-150

Summit Scientific

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

**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 1603213 - EPA 5030 Soil MS**

**Blank (1603213-BLK1)**

Prepared & Analyzed: 03/21/16

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>0.0370</i>		<i>"</i>	<i>0.0400</i>		<i>92.6</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0386</i>		<i>"</i>	<i>0.0400</i>		<i>96.6</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>21-167</i>			

**LCS (1603213-BS1)**

Prepared & Analyzed: 03/21/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0847	0.0020	"	0.100		84.7	58-130			
Toluene	0.0957	0.0050	"	0.100		95.7	61-134			
Ethylbenzene	0.105	0.0050	"	0.0992		106	74-139			
m,p-Xylene	0.197	0.010	"	0.200		98.8	73-137			
o-Xylene	0.0980	0.0050	"	0.0980		100	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0355</i>		<i>"</i>	<i>0.0400</i>		<i>88.7</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>21-167</i>			

**Matrix Spike (1603213-MS1)**

Source: 1603143-01

Prepared & Analyzed: 03/21/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0888	0.0020	"	0.0956	ND	92.9	30-131			
Toluene	0.101	0.0050	"	0.0956	ND	106	30-134			
Ethylbenzene	0.111	0.0050	"	0.0948	ND	117	22-153			
m,p-Xylene	0.209	0.010	"	0.191	ND	109	10-159			
o-Xylene	0.104	0.0050	"	0.0937	ND	111	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0349</i>		<i>"</i>	<i>0.0382</i>		<i>91.3</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0384</i>		<i>"</i>	<i>0.0382</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0380</i>		<i>"</i>	<i>0.0382</i>		<i>99.4</i>	<i>21-167</i>			

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

**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 1603213 - EPA 5030 Soil MS**

Matrix Spike Dup (1603213-MSD1)		Source: 1603143-01			Prepared & Analyzed: 03/21/16					
Naphthalene	ND	0.010	mg/kg		ND		10-158		42	
Benzene	0.0926	0.0020	"	0.0992	ND	93.3	30-131	4.15	34	
Toluene	0.107	0.0050	"	0.0992	ND	108	30-134	5.10	30	
Ethylbenzene	0.124	0.0050	"	0.0984	ND	126	22-153	10.7	24	
m,p-Xylene	0.231	0.010	"	0.198	ND	117	10-159	10.2	68	
o-Xylene	0.115	0.0050	"	0.0972	ND	119	31-151	10.5	38	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0370		"	0.0397		93.3	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0397		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0397		103	21-167			

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
03/22/16 06:59

**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 1603217 - General Preparation**

**Blank (1603217-BLK1)**

Prepared & Analyzed: 03/21/16

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

**LCS (1603217-BS1)**

Prepared & Analyzed: 03/21/16

Calcium	559	10.0	mg/kg wet	500	112	82.9-118
Magnesium	508	5.00	"	500	102	77.1-123
Sodium	544	5.00	"	500	109	71-129

**Duplicate (1603217-DUP1)**

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1030	10.7	mg/kg dry	1090	4.78	200
Magnesium	155	5.36	"	155	0.605	200
Sodium	56.8	5.36	"	58.3	2.62	200

**Matrix Spike (1603217-MS1)**

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1530	10.7	mg/kg dry	536	1090	83.6	75-125
Magnesium	740	5.36	"	536	155	109	75-125
Sodium	654	5.36	"	536	58.3	111	75-125

**Matrix Spike Dup (1603217-MSD1)**

Source: 1603143-02

Prepared & Analyzed: 03/21/16

Calcium	1520	10.7	mg/kg dry	536	1090	81.6	75-125	0.708	25
Magnesium	729	5.36	"	536	155	107	75-125	1.44	25
Sodium	661	5.36	"	536	58.3	112	75-125	1.09	25

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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
03/22/16 06:59

**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 1603215 - General Preparation**

**LCS (1603215-BS1)**

Prepared & Analyzed: 03/21/16

pH	6.09	0.100	pH Units	6.00	102	95-105
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**Duplicate (1603215-DUP1)**

**Source: 1603143-02**

Prepared & Analyzed: 03/21/16

pH	7.63	0.100	pH Units	7.59	0.526	20
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**Batch 1603216 - General Preparation**

**Blank (1603216-BLK1)**

Prepared & Analyzed: 03/21/16

Specific Conductance (EC)	ND	0.0100	mmhos/cm
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**LCS (1603216-BS1)**

Prepared & Analyzed: 03/21/16

Specific Conductance (EC)	0.0985	0.00200	mmhos/cm	0.100	98.5	90-110
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**Duplicate (1603216-DUP1)**

**Source: 1603143-02**

Prepared & Analyzed: 03/21/16

Specific Conductance (EC)	0.612	0.0100	mmhos/cm	0.612	0.0817	20
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Fremont Environmental  
1759 Redwing Lane  
Broomfield CO, 80020

Project: Noble - Dinner K 13-2

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
03/22/16 06:59

### 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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Summit Scientific

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