



LEGEND

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

**Figure 1
SITE MAP**

Noble Daniels PMK 5-8
 Facility ID - 326987
 SE NE Section 5, T4N, R66W
 Weld County, Colorado

API No. 05-123-13973	Prepared by	Drawn by JMA
Date 7/28/16	Reviewed by	Filename V040A



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 17, 2016

Paul Henehan
Fremont Environmental
1759 Redwing Lane
Broomfield, CO 80020

RE: Noble - Daniels PMK 5-8

Enclosed are the results of analyses for samples received by Summit Scientific on 07/15/16 18:15. 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 - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W5'	1607097-01	Soil	07/15/16 00:00	07/15/16 18:15
F7'	1607097-02	Soil	07/15/16 00:00	07/15/16 18:15

Summit Scientific

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S₂

Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

Summit Scientific 1607097

S₂

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

Page | of |

Client: Fremont Env. Project Manager: Paul H.
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: _____ Fax: _____ Project Name: Noble - Daniels PMK 5-8 Howard
 Sampler Name: M Taylor Project Number: _____

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	STEX	CO/NO	NO _x	SO ₂	LEL	PH		
1	W5	7/15/16																		
2	F7																			
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
Relinquished by: <u>[Signature]</u>		Date/Time: <u>7/15/16 14:00</u>		Received by: <u>[Signature]</u>		Date/Time: <u>7-15-16 14:00</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"/>		Sample Integrity:		Temperature Upon Receipt: <u>9.5</u>		Notes:
Relinquished by: <u>[Signature]</u>		Date/Time: <u>7-15-16 18:30</u>		Received by:		Date/Time:		Sample Integrity:		Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Relinquished by:		Date/Time:		Received by:		Date/Time:														

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

Sample Receipt Checklist

S2 Work Order: 1607097

Client: Fremont Client Project ID: Noble - Daniels & Pmk 5-8 Howard

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

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

Cooler ID					
Temp (°C)	<u>9.5</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⁾ ?			X	
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⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
If custody seals are present, are they intact ⁽¹⁾ ?			X	
Are short holding time analytes or samples with HTs due within 48 hours present?	X			
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			X	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			X	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Muri P.
Custodian Printed Name

PA 7-15-16
Signature or Initials of Custodian

18:30
Date/Time



Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

W5'
1607097-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1607140	07/15/16	07/16/16	8015M	

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		96.6 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1607142	07/15/16	07/16/16	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: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	21-167		"	"	"	"	

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

Date Sampled: 07/15/16 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 - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

W5'

1607097-01 (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	497	9.52	mg/kg dry	1	1607146	07/15/16	07/15/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	451	4.76	"	"	"	"	"	"	
Sodium	37.8	4.76	"	"	"	"	"	"	

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.300		units	"	1607149	07/17/16	07/17/16	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.823	0.0100	mmhos/cm	1	1607138	07/15/16	07/15/16	SM 2510B	

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23	0.100	pH Units	"	1607136	07/15/16	07/15/16	EPA 9045	

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.9		%	"	1607145	07/15/16	07/17/16	% calculation	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

F7'

1607097-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1607140	07/15/16	07/16/16	8015M	

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.3 %	30-150		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Naphthalene	ND	0.010	mg/kg	1	1607142	07/15/16	07/16/16	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: 07/15/16 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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 1607140 - EPA 3550A

Blank (1607140-BLK1)

Prepared: 07/15/16 Analyzed: 07/16/16

C10-C28 (DRO)	ND	50	mg/kg								
Surrogate: <i>o</i> -Terphenyl	12.7		"	12.5		102	30-150				

LCS (1607140-BS1)

Prepared: 07/15/16 Analyzed: 07/16/16

C10-C28 (DRO)	605	50	mg/kg	499		121	73-134				
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		109	30-150				

Matrix Spike (1607140-MS1)

Source: 1607085-21

Prepared: 07/15/16 Analyzed: 07/16/16

C10-C28 (DRO)	741	50	mg/kg	484	108	131	50-148				
Surrogate: <i>o</i> -Terphenyl	14.7		"	12.1		121	30-150				

Matrix Spike Dup (1607140-MSD1)

Source: 1607085-21

Prepared: 07/15/16 Analyzed: 07/16/16

C10-C28 (DRO)	728	50	mg/kg	497	108	125	50-148	1.84	20		
Surrogate: <i>o</i> -Terphenyl	15.0		"	12.5		120	30-150				

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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 1607142 - EPA 5030 Soil MS

Blank (1607142-BLK1)

Prepared & Analyzed: 07/15/16

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>0.0363</i>		<i>"</i>	<i>0.0400</i>		<i>90.8</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0380</i>		<i>"</i>	<i>0.0400</i>		<i>95.0</i>	<i>21-167</i>			

LCS (1607142-BS1)

Prepared & Analyzed: 07/15/16

Naphthalene	ND	0.010	mg/kg				66-138			
Benzene	0.0949	0.0020	"	0.100		94.9	58-130			
Toluene	0.111	0.0050	"	0.100		111	61-134			
Ethylbenzene	0.117	0.0050	"	0.0992		118	74-139			
m,p-Xylene	0.240	0.010	"	0.200		120	73-137			
o-Xylene	0.113	0.0050	"	0.0980		115	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0354</i>		<i>"</i>	<i>0.0400</i>		<i>88.4</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>97.9</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0383</i>		<i>"</i>	<i>0.0400</i>		<i>95.8</i>	<i>21-167</i>			

Matrix Spike (1607142-MS1)

Source: 1607076-01

Prepared & Analyzed: 07/15/16

Naphthalene	ND	0.010	mg/kg		ND		10-158			
Benzene	0.0964	0.0020	"	0.100	ND	96.4	30-131			
Toluene	0.111	0.0050	"	0.100	ND	111	30-134			
Ethylbenzene	0.117	0.0050	"	0.0992	ND	118	22-153			
m,p-Xylene	0.238	0.010	"	0.200	ND	119	10-159			
o-Xylene	0.112	0.0050	"	0.0980	ND	115	31-151			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.7</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0390</i>		<i>"</i>	<i>0.0400</i>		<i>97.6</i>	<i>21-167</i>			

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Fremont Environmental
1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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 1607142 - EPA 5030 Soil MS

Matrix Spike Dup (1607142-MSD1)	Source: 1607076-01			Prepared & Analyzed: 07/15/16						
Naphthalene	ND	0.010	mg/kg	ND	ND	10-158			42	
Benzene	0.0972	0.0020	"	0.100	ND	97.2	30-131	0.837	34	
Toluene	0.112	0.0050	"	0.100	ND	112	30-134	1.10	30	
Ethylbenzene	0.116	0.0050	"	0.0992	ND	117	22-153	1.29	24	
m,p-Xylene	0.237	0.010	"	0.200	ND	119	10-159	0.519	68	
o-Xylene	0.113	0.0050	"	0.0980	ND	116	31-151	0.956	38	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.3</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>97.0</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0371</i>		<i>"</i>	<i>0.0400</i>		<i>92.8</i>	<i>21-167</i>			

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1759 Redwing Lane
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Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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 1607146 - General Preparation

Blank (1607146-BLK1)

Prepared & Analyzed: 07/15/16

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

LCS (1607146-BS1)

Prepared & Analyzed: 07/15/16

Calcium	495	10.0	mg/kg wet	500	99.0	82.9-118
Magnesium	464	5.00	"	500	92.9	77.1-123
Sodium	505	5.00	"	500	101	71-129

Duplicate (1607146-DUP1)

Source: 1607097-01

Prepared & Analyzed: 07/15/16

Calcium	538	9.52	mg/kg dry	497	8.02	200
Magnesium	428	4.76	"	451	5.31	200
Sodium	36.2	4.76	"	37.8	4.20	200

Matrix Spike (1607146-MS1)

Source: 1607097-01

Prepared & Analyzed: 07/15/16

Calcium	857	9.52	mg/kg dry	476	497	75.8	75-125
Magnesium	882	4.76	"	476	451	90.4	75-125
Sodium	504	4.76	"	476	37.8	97.9	75-125

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Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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 1607136 - General Preparation

LCS (1607136-BS1)					Prepared & Analyzed: 07/15/16					
pH	8.05	0.100	pH Units	8.00	101	95-105				
Duplicate (1607136-DUP1)					Source: 1607081-01 Prepared & Analyzed: 07/15/16					
pH	9.23	0.100	pH Units	9.12	1.20	20				

Batch 1607138 - General Preparation

Blank (1607138-BLK1)					Prepared & Analyzed: 07/15/16					
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (1607138-BS1)					Prepared & Analyzed: 07/15/16					
Specific Conductance (EC)	0.499	0.0100	mmhos/cm	0.500	99.8	90-110				
Duplicate (1607138-DUP1)					Source: 1607081-01 Prepared & Analyzed: 07/15/16					
Specific Conductance (EC)	3.23	0.0100	mmhos/cm	3.17	1.94	20				

Batch 1607145 - General Preparation

Duplicate (1607145-DUP1)					Source: 1607097-01 Prepared: 07/15/16 Analyzed: 07/17/16					
% Solids	81.3		%	81.9	0.735	20				

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1759 Redwing Lane
Broomfield CO, 80020

Project: Noble - Daniels PMK 5-8

Project Number: [none]
Project Manager: Paul Henehan

Reported:
07/17/16 14:53

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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