

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

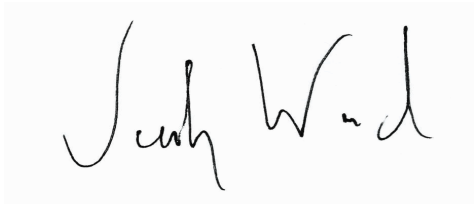
303.277.9310

July 26, 2024

Paul Henehan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - Farr C18-25  
Work Order #2406372

Enclosed are the results of analyses for samples received by Summit Scientific on 06/25/24 16:42. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@4.0'	2406372-01	Soil	06/25/24 00:00	06/25/24 16:42
N01@3.0'	2406372-02	Soil	06/25/24 00:00	06/25/24 16:42
S01@3.0'	2406372-03	Soil	06/25/24 00:00	06/25/24 16:42
E01@3.0'	2406372-04	Soil	06/25/24 00:00	06/25/24 16:42
W01@3.0'	2406372-05	Soil	06/25/24 00:00	06/25/24 16:42
Backfill	2406372-06	Soil	06/25/24 00:00	06/25/24 16:42

#### Case Narrative

Rerun analyses were performed by client request on 7/8/2024.  
The rerun results included in this report are denoted with "RE#."

This is a revision of the report originally sent on 7/2/2024 at 10:45 AM MT.

Summit Scientific

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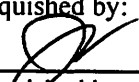
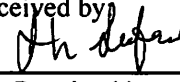
# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page <u>1</u> of <u>1</u>
<b>2406372</b>	

Client: <b>Fremont Env</b>		Send Data To:		Send Invoice To:	
Address:		Project Manager: <b>Paul Hennehan</b>		Company: <b>Noble</b>	
City/State/Zip:		E-Mail: <b>Paul.H@fremontenv.com</b>		Project Name/Location:	
Phone:		<b>jeff@fremontenv.com Ethel@fremontenv.com</b>		AFE#:	
Sampler Name: <b>JG</b>		Project Name: <b>Farr C 18-25</b>		PO/Billing Codes:	
		Project Number:		Contact:	

					Preservative				Matrix				Analysis Requested						Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX+N	TMBs (915)	DRO,ORO,GR0	PAHs (915)	EC-PH,5AR,Barua	Metals (915)		
1	Bole 4.0'	6/25/24		2			X			X			X	X	X	X	X	X		
2	Noie 3.0'	↓		↓			X			X			↓	↓	↓	↓	↓	↓		
3	Sole 3.0'	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓		
4	Eole 3.0'	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓		
5	wole 3.0'	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓		
6	Backfill	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓		
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: 	Date/Time: <b>6/25/24</b>	Received by: 	Date/Time: <b>6-25-24</b>	TAT Business Days	Field DO	Notes:
				Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <b>28.6</b>	Corrected Temperature	IR gun #: <b>2</b>	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2406372Client: Fremont Env Client Project ID: Farr C 18-25Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 28.6 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day</u>
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Josh  
Custodian Printed Name6-25-24 16:42  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**B01@4.0'**  
**2406372-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0568	142 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0434	108 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	7.96	63.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**B01@4.0'**  
**2406372-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0139	41.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0157	47.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**B01@4.0'**  
**2406372-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Copper	18.2	0.400	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Nickel	18.5	0.400	"	"	"	"	"	"
Silver	0.107	0.0200	"	"	"	"	"	"
Zinc	28.2	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	70.6	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	7.45	0.0500	"	"	"	"	"	"	
Sodium	14.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.423	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.5		%	1	BHF0842	06/26/24	06/27/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**B01@4.0'**  
**2406372-01 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.227</b>	0.0100		mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**B01@4.0'**  
**2406372-01RE1 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>3.36</b>	0.200	mg/kg dry	1	BHG0173	07/08/24	07/09/24	EPA 6020B	
<b>Barium</b>	<b>78.8</b>	0.400	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.307</b>	0.200	"	"	"	"	"	"	
<b>Lead</b>	<b>26.4</b>	0.200	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.59</b>		pH Units	1	BHG0145	06/25/24	07/09/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

**N01@3.0'**  
**2406372-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0592	148 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	7.16	57.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**N01@3.0'**  
**2406372-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0150	45.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0134	40.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**N01@3.0'**  
**2406372-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.06	0.200	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Barium	68.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.92	0.400	"	"	"	"	"	"
Lead	8.93	0.200	"	"	"	"	"	"
Nickel	6.79	0.400	"	"	"	"	"	"
Silver	0.0713	0.0200	"	"	"	"	"	"
Zinc	16.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	270	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	5.88	0.0500	"	"	"	"	"	"	
Sodium	92.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.53	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**N01@3.0'**  
**2406372-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.8		%	1	BHF0842	06/26/24	06/27/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.440	0.0100	mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.14		pH Units	1	BHF0809	06/25/24	06/26/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**S01@3.0'**  
**2406372-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0571	143 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.53	68.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**S01@3.0'**  
**2406372-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0155	46.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0164	49.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**S01@3.0'**  
**2406372-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	4.01	0.200	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Barium	88.5	0.400	"	"	"	"	"	"
Cadmium	0.214	0.200	"	"	"	"	"	"
Copper	8.65	0.400	"	"	"	"	"	"
Lead	8.35	0.200	"	"	"	"	"	"
Nickel	10.9	0.400	"	"	"	"	"	"
Silver	0.0628	0.0200	"	"	"	"	"	"
Zinc	19.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.9	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	6.07	0.0500	"	"	"	"	"	"	
Sodium	51.2	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.20	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**S01@3.0'**  
**2406372-03 (Soil)**

**Summit Scientific**

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

% Solids	93.6	%	1	BHF0842	06/26/24	06/27/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.374	0.0100	mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.69		pH Units	1	BHF0809	06/25/24	06/26/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**E01@3.0'**  
**2406372-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0566	141 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0454	114 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	7.89	63.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**E01@3.0'**  
**2406372-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0150	44.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0154	46.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henahan

**Reported:**  
07/26/24 12:37

**E01@3.0'**  
**2406372-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.26	0.200	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Barium	80.7	0.400	"	"	"	"	"	"
Cadmium	0.287	0.200	"	"	"	"	"	"
Copper	9.44	0.400	"	"	"	"	"	"
Nickel	9.37	0.400	"	"	"	"	"	"
Silver	0.0408	0.0200	"	"	"	"	"	"
Zinc	21.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	8120	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	20.5	0.0500	"	"	"	"	"	"	
Sodium	146	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.445	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.3		%	1	BHF0842	06/26/24	06/27/24	Calculation	

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

**E01@3.0'**  
**2406372-04 (Soil)**

**Summit Scientific**

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

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.531	0.0100		mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.66			pH Units	1	BHF0809	06/25/24	06/26/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**E01@3.0'**  
**2406372-04RE1 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Lead	24.2	0.200		mg/kg dry	1	BHG0173	07/08/24	07/09/24	EPA 6020B	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**W01@3.0'**  
**2406372-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0554	139 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	6.84	54.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**W01@3.0'**  
**2406372-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0156	46.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0168	50.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**W01@3.0'**  
**2406372-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Cadmium	0.238	0.180	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Copper	9.35	0.360	"	"	"	"	"	"
Lead	15.9	0.180	"	"	"	"	"	"
Nickel	11.1	0.360	"	"	"	"	"	"
Silver	0.0724	0.0180	"	"	"	"	"	"
Zinc	20.4	0.360	"	"	"	"	"	"
Selenium	ND	0.234	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	686	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	9.46	0.0500	"	"	"	"	"	"	
Sodium	80.2	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.834	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BHF0842	06/26/24	06/27/24	Calculation	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**W01@3.0'**  
**2406372-05 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.389</b>	0.0100		mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.27</b>			pH Units	1	BHF0809	06/25/24	06/26/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**W01@3.0'**  
**2406372-05RE1 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Arsenic</b>	<b>3.59</b>	0.200		mg/kg dry	1	BHG0173	07/08/24	07/09/24	EPA 6020B	
<b>Barium</b>	<b>80.6</b>	0.400		"	"	"	"	"	"	

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PO Box 1289  
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Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

**Backfill**  
**2406372-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHF0832	06/25/24	06/25/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0559	140 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0383	95.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0425	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0833	06/25/24	06/25/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	7.97	63.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Backfill**  
**2406372-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0844	06/26/24	06/26/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0142	42.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0152	45.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0865	06/26/24	06/28/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

**Backfill**  
**2406372-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.15	0.200	mg/kg dry	1	BHF0848	06/26/24	06/27/24	EPA 6020B
Barium	67.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.40	0.400	"	"	"	"	"	"
Lead	5.70	0.200	"	"	"	"	"	"
Nickel	7.15	0.400	"	"	"	"	"	"
Silver	0.0319	0.0200	"	"	"	"	"	"
Zinc	17.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0853	06/26/24	06/26/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	54.8	0.0500	mg/L dry	1	BHF0803	06/25/24	06/27/24	EPA 6020B	
Magnesium	4.58	0.0500	"	"	"	"	"	"	
Sodium	15.4	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.537	0.00100	units	1	BHF0966	06/28/24	06/28/24	Calculation	

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henahan

**Reported:**  
07/26/24 12:37

**Backfill**  
**2406372-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.1		%	1	BHF0842	06/26/24	06/27/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.272	0.0100	mmhos/cm	1	BHF0808	06/25/24	06/26/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **06/25/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.20		pH Units	1	BHF0809	06/25/24	06/26/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

## 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 BHF0832 - EPA 5030 Soil MS

##### Blank (BHF0832-BLK1)

Prepared: 06/25/24 Analyzed: 06/26/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0488		"	0.0400		122	50-150			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0425		"	0.0400		106	50-150			

##### LCS (BHF0832-BS1)

Prepared: 06/25/24 Analyzed: 06/26/24

Benzene	0.101	0.0020	mg/kg	0.100		101	70-130			
Toluene	0.104	0.0050	"	0.100		104	70-130			
Ethylbenzene	0.103	0.0050	"	0.100		103	70-130			
m,p-Xylene	0.200	0.010	"	0.200		99.9	70-130			
o-Xylene	0.102	0.0050	"	0.100		102	70-130			
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
Naphthalene	0.102	0.0038	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0499		"	0.0400		125	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	50-150			

##### Matrix Spike (BHF0832-MS1)

Source: 2406355-03

Prepared: 06/25/24 Analyzed: 06/26/24

Benzene	0.0917	0.0020	mg/kg	0.100	ND	91.7	70-130			
Toluene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
Ethylbenzene	0.0934	0.0050	"	0.100	ND	93.4	70-130			
m,p-Xylene	0.185	0.010	"	0.200	ND	92.3	70-130			
o-Xylene	0.0925	0.0050	"	0.100	ND	92.5	70-130			
1,2,4-Trimethylbenzene	0.0866	0.0050	"	0.100	ND	86.6	70-130			
1,3,5-Trimethylbenzene	0.0881	0.0050	"	0.100	ND	88.1	70-130			
Naphthalene	0.0840	0.0038	"	0.100	ND	84.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0515		"	0.0400		129	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0413		"	0.0400		103	50-150			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

## 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 BHF0832 - EPA 5030 Soil MS

##### Matrix Spike Dup (BHF0832-MSD1)

Source: 2406355-03

Prepared: 06/25/24 Analyzed: 06/26/24

Benzene	0.0949	0.0020	mg/kg	0.100	ND	94.9	70-130	3.41	30	
Toluene	0.0979	0.0050	"	0.100	ND	97.9	70-130	1.64	30	
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	10.2	30	
m,p-Xylene	0.204	0.010	"	0.200	ND	102	70-130	10.2	30	
o-Xylene	0.0993	0.0050	"	0.100	ND	99.3	70-130	7.10	30	
1,2,4-Trimethylbenzene	0.0945	0.0050	"	0.100	ND	94.5	70-130	8.72	30	
1,3,5-Trimethylbenzene	0.0969	0.0050	"	0.100	ND	96.9	70-130	9.47	30	
Naphthalene	0.0870	0.0038	"	0.100	ND	87.0	70-130	3.54	30	
Surrogate: 1,2-Dichloroethane-d4	0.0499		"	0.0400		125	50-150			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0428		"	0.0400		107	50-150			

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Fremont Environmental  
PO Box 1289  
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Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**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 BHF0833 - EPA 3550A**

**Blank (BHF0833-BLK1)**

Prepared: 06/25/24 Analyzed: 06/26/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	12.2		"	12.5		97.3	30-150			

**LCS (BHF0833-BS1)**

Prepared: 06/25/24 Analyzed: 06/26/24

C10-C28 (DRO)	446	50	mg/kg	500		89.2	70-130			
Surrogate: o-Terphenyl	12.0		"	12.5		96.4	30-150			

**Matrix Spike (BHF0833-MS1)**

Source: 2406355-03

Prepared: 06/25/24 Analyzed: 06/26/24

C10-C28 (DRO)	393	50	mg/kg	500	24.5	73.7	70-130			
Surrogate: o-Terphenyl	6.74		"	12.5		53.9	30-150			

**Matrix Spike Dup (BHF0833-MSD1)**

Source: 2406355-03

Prepared: 06/25/24 Analyzed: 06/26/24

C10-C28 (DRO)	408	50	mg/kg	500	24.5	76.8	70-130	3.86	20	
Surrogate: o-Terphenyl	7.12		"	12.5		57.0	30-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

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

**Batch BHF0844 - EPA 5030 Soil MS**

**Blank (BHF0844-BLK1)**

Prepared & Analyzed: 06/26/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0205		"	0.0333		61.6	40-150			
Surrogate: Fluoranthene-d10	0.0184		"	0.0333		55.1	40-150			

**LCS (BHF0844-BS1)**

Prepared & Analyzed: 06/26/24

Acenaphthene	0.0201	0.00500	mg/kg	0.0333	60.3	31-137
Anthracene	0.0204	0.00500	"	0.0333	61.3	30-120
Benzo (a) anthracene	0.0230	0.00500	"	0.0333	69.1	30-120
Benzo (a) pyrene	0.0209	0.00500	"	0.0333	62.8	30-120
Benzo (b) fluoranthene	0.0213	0.00500	"	0.0333	63.8	30-120
Benzo (k) fluoranthene	0.0220	0.00500	"	0.0333	66.1	30-120
Chrysene	0.0226	0.00500	"	0.0333	67.8	30-120
Dibenz (a,h) anthracene	0.0198	0.00500	"	0.0333	59.4	30-120
Fluoranthene	0.0200	0.00500	"	0.0333	60.1	30-120
Fluorene	0.0193	0.00500	"	0.0333	58.0	30-120
Indeno (1,2,3-cd) pyrene	0.0187	0.00500	"	0.0333	56.2	30-120
Pyrene	0.0228	0.00500	"	0.0333	68.3	35-142
1-Methylnaphthalene	0.0191	0.00500	"	0.0333	57.4	35-142
2-Methylnaphthalene	0.0172	0.00500	"	0.0333	51.7	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0201		"	0.0333	60.3	40-150
Surrogate: Fluoranthene-d10	0.0213		"	0.0333	63.9	40-150

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BHF0844 - EPA 5030 Soil MS

##### Matrix Spike (BHF0844-MS1)

Source: 2406372-01

Prepared & Analyzed: 06/26/24

Acenaphthene	0.0157	0.00500	mg/kg	0.0333	ND	47.1	31-137				
Anthracene	0.0165	0.00500	"	0.0333	ND	49.6	30-120				
Benzo (a) anthracene	0.0193	0.00500	"	0.0333	ND	58.0	30-120				
Benzo (a) pyrene	0.0172	0.00500	"	0.0333	ND	51.5	30-120				
Benzo (b) fluoranthene	0.0177	0.00500	"	0.0333	ND	53.0	30-120				
Benzo (k) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.1	30-120				
Chrysene	0.0195	0.00500	"	0.0333	ND	58.4	30-120				
Dibenz (a,h) anthracene	0.0148	0.00500	"	0.0333	ND	44.3	30-120				
Fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120				
Fluorene	0.0172	0.00500	"	0.0333	ND	51.7	30-120				
Indeno (1,2,3-cd) pyrene	0.0163	0.00500	"	0.0333	ND	49.0	30-120				
Pyrene	0.0200	0.00500	"	0.0333	ND	60.1	35-142				
1-Methylnaphthalene	0.0141	0.00500	"	0.0333	ND	42.3	15-130				
2-Methylnaphthalene	0.0129	0.00500	"	0.0333	ND	38.7	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0138		"	0.0333		41.4	40-150				
Surrogate: Fluoranthene-d10	0.0166		"	0.0333		49.8	40-150				

##### Matrix Spike Dup (BHF0844-MSD1)

Source: 2406372-01

Prepared & Analyzed: 06/26/24

Acenaphthene	0.0165	0.00500	mg/kg	0.0333	ND	49.4	31-137	4.65	30
Anthracene	0.0163	0.00500	"	0.0333	ND	48.9	30-120	1.43	30
Benzo (a) anthracene	0.0199	0.00500	"	0.0333	ND	59.7	30-120	2.76	30
Benzo (a) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	30-120	2.50	30
Benzo (b) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	2.34	30
Benzo (k) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.3	30-120	0.366	30
Chrysene	0.0189	0.00500	"	0.0333	ND	56.7	30-120	2.89	30
Dibenz (a,h) anthracene	0.0159	0.00500	"	0.0333	ND	47.6	30-120	7.09	30
Fluoranthene	0.0171	0.00500	"	0.0333	ND	51.3	30-120	0.896	30
Fluorene	0.0175	0.00500	"	0.0333	ND	52.4	30-120	1.44	30
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.4	30-120	3.29	30
Pyrene	0.0200	0.00500	"	0.0333	ND	59.9	35-142	0.398	30
1-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.8	15-130	25.8	50
2-Methylnaphthalene	0.0175	0.00500	"	0.0333	ND	52.4	15-130	30.2	50
Surrogate: 2-Methylnaphthalene-d10	0.0170		"	0.0333		50.9	40-150		
Surrogate: Fluoranthene-d10	0.0171		"	0.0333		51.4	40-150		

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**  
**Summit Scientific**

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

**Batch BHF0865 - EPA 3050B**

**Blank (BHF0865-BLK1)**

Prepared: 06/26/24 Analyzed: 06/28/24

Boron ND 2.00 mg/L

**LCS (BHF0865-BS1)**

Prepared: 06/26/24 Analyzed: 06/28/24

Boron 5.47 2.00 mg/L 5.00 109 80-120

**Duplicate (BHF0865-DUP1)**

**Source: 2406372-01**

Prepared: 06/26/24 Analyzed: 06/28/24

Boron 0.259 2.00 mg/L 0.318 20.6 20 QR-02

**Matrix Spike (BHF0865-MS1)**

**Source: 2406372-01**

Prepared: 06/26/24 Analyzed: 06/28/24

Boron 5.44 2.00 mg/L 5.01 0.318 102 75-125

**Matrix Spike Dup (BHF0865-MSD1)**

**Source: 2406372-01**

Prepared: 06/26/24 Analyzed: 06/28/24

Boron 5.71 2.00 mg/L 5.01 0.318 108 75-125 4.76 25

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHF0848 - EPA 3050B**

**Blank (BHF0848-BLK1)**

Prepared: 06/26/24 Analyzed: 06/27/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

**LCS (BHF0848-BS1)**

Prepared: 06/26/24 Analyzed: 06/27/24

Arsenic	36.5	0.200	mg/kg wet	40.0	91.3	80-120
Barium	38.6	0.400	"	40.0	96.5	80-120
Cadmium	1.94	0.200	"	2.00	96.9	80-120
Copper	37.9	0.400	"	40.0	94.7	80-120
Lead	19.4	0.200	"	20.0	97.0	80-120
Nickel	37.5	0.400	"	40.0	93.8	80-120
Silver	1.93	0.0200	"	2.00	96.7	80-120
Zinc	41.3	0.400	"	40.0	103	80-120
Selenium	4.43	0.260	"	4.00	111	80-120

**Duplicate (BHF0848-DUP1)**

Source: 2406372-01

Prepared: 06/26/24 Analyzed: 06/27/24

Arsenic	6.25	0.200	mg/kg dry	6.24	0.152	20
Barium	140	0.400	"	140	0.392	20
Cadmium	0.550	0.200	"	0.546	0.787	20
Copper	18.3	0.400	"	18.2	0.581	20
Lead	53.1	0.200	"	53.3	0.350	20
Nickel	18.5	0.400	"	18.5	0.203	20
Silver	0.105	0.0200	"	0.107	1.63	20
Zinc	28.5	0.400	"	28.2	1.05	20
Selenium	0.289	0.260	"	0.275	5.06	20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHF0848 - EPA 3050B**

Matrix Spike (BHF0848-MS1)		Source: 2406372-01			Prepared: 06/26/24 Analyzed: 06/27/24						
Arsenic	39.5	0.200	mg/kg dry	43.5	6.24	76.4	75-125				
Barium	117	0.400	"	43.5	140	NR	75-125				QM-07
Cadmium	2.30	0.200	"	2.18	0.546	80.6	75-125				
Copper	47.3	0.400	"	43.5	18.2	66.8	75-125				QM-07
Lead	36.9	0.200	"	21.8	53.3	NR	75-125				QM-07
Nickel	45.9	0.400	"	43.5	18.5	62.9	75-125				QM-07
Silver	2.03	0.0200	"	2.18	0.107	88.2	75-125				
Zinc	47.3	0.400	"	43.5	28.2	43.9	75-125				QM-07
Selenium	4.30	0.260	"	4.35	0.275	92.4	75-125				

Matrix Spike Dup (BHF0848-MSD1)		Source: 2406372-01			Prepared: 06/26/24 Analyzed: 06/27/24						
Arsenic	40.6	0.200	mg/kg dry	43.5	6.24	79.1	75-125	2.86	25		
Barium	120	0.400	"	43.5	140	NR	75-125	2.56	25		QM-07
Cadmium	2.36	0.200	"	2.18	0.546	83.6	75-125	2.80	25		
Copper	48.7	0.400	"	43.5	18.2	70.0	75-125	2.89	25		QM-07
Lead	37.9	0.200	"	21.8	53.3	NR	75-125	2.59	25		QM-07
Nickel	47.3	0.400	"	43.5	18.5	66.3	75-125	3.12	25		QM-07
Silver	2.07	0.0200	"	2.18	0.107	90.3	75-125	2.29	25		
Zinc	47.3	0.400	"	43.5	28.2	44.0	75-125	0.0782	25		QM-07
Selenium	4.61	0.260	"	4.35	0.275	99.6	75-125	7.04	25		

**Batch BHG0173 - EPA 3050B**

Blank (BHG0173-BLK1)		Prepared: 07/08/24 Analyzed: 07/09/24									
Arsenic	ND	0.200	mg/kg wet								
Barium	ND	0.400	"								
Cadmium	ND	0.200	"								
Copper	ND	0.400	"								
Lead	ND	0.200	"								
Nickel	ND	0.400	"								
Silver	ND	0.0200	"								
Zinc	ND	0.400	"								
Selenium	ND	0.260	"								

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHG0173 - EPA 3050B**

**LCS (BHG0173-BS1)**

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	38.4	0.200	mg/kg wet	40.0		96.0	80-120			
Barium	38.4	0.400	"	40.0		96.0	80-120			
Cadmium	1.96	0.200	"	2.00		97.9	80-120			
Copper	39.8	0.400	"	40.0		99.5	80-120			
Lead	19.4	0.200	"	20.0		97.0	80-120			
Nickel	39.9	0.400	"	40.0		99.8	80-120			
Silver	1.94	0.0200	"	2.00		96.9	80-120			
Zinc	40.0	0.400	"	40.0		99.9	80-120			
Selenium	4.26	0.260	"	4.00		106	80-120			

**Duplicate (BHG0173-DUP1)**

Source: 2406141-01RE1

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	1.55	0.200	mg/kg wet		1.29			18.6	20	
Barium	233	0.400	"		125			60.6	20	QR-04
Cadmium	0.162	0.200	"		0.160			0.913	20	
Copper	3.42	0.400	"		3.34			2.30	20	
Lead	11.7	0.200	"		6.26			60.5	20	QR-04
Nickel	2.90	0.400	"		2.65			9.23	20	
Silver	0.0353	0.0200	"		0.0386			8.96	20	
Zinc	24.5	0.400	"		15.4			45.6	20	QR-04
Selenium	0.897	0.260	"		0.715			22.6	20	QR-01

**Matrix Spike (BHG0173-MS1)**

Source: 2406141-01RE1

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	36.7	0.200	mg/kg wet	38.5	1.29	92.1	75-125			
Barium	187	0.400	"	38.5	125	162	75-125			QM-07
Cadmium	1.98	0.200	"	1.92	0.160	94.6	75-125			
Copper	26.9	0.400	"	38.5	3.34	61.4	75-125			QM-05
Lead	25.8	0.200	"	19.2	6.26	102	75-125			
Nickel	26.4	0.400	"	38.5	2.65	61.7	75-125			QM-05
Silver	1.80	0.0200	"	1.92	0.0386	91.8	75-125			
Zinc	43.6	0.400	"	38.5	15.4	73.4	75-125			QM-05
Selenium	4.77	0.260	"	3.85	0.715	105	75-125			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHG0173 - EPA 3050B**

**Matrix Spike Dup (BHG0173-MSD1)**

**Source: 2406141-01RE1**

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	35.1	0.181	mg/kg wet	36.2	1.29	93.3	75-125	4.54	25	
Barium	237	0.362	"	36.2	125	310	75-125	23.6	25	QM-07
Cadmium	1.94	0.181	"	1.81	0.160	98.5	75-125	1.80	25	
Copper	24.3	0.362	"	36.2	3.34	57.9	75-125	10.2	25	QM-05
Lead	26.3	0.181	"	18.1	6.26	111	75-125	1.89	25	
Nickel	23.7	0.362	"	36.2	2.65	58.2	75-125	10.6	25	QM-05
Silver	1.74	0.0181	"	1.81	0.0386	94.0	75-125	3.53	25	
Zinc	44.9	0.362	"	36.2	15.4	81.4	75-125	2.91	25	
Selenium	5.20	0.236	"	3.62	0.715	124	75-125	8.76	25	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BHF0853 - 3060A Mod**

**Blank (BHF0853-BLK1)**

Prepared & Analyzed: 06/26/24

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BHF0853-BS1)**

Prepared & Analyzed: 06/26/24

Chromium, Hexavalent 25.2 0.30 mg/kg wet 25.0 101 80-120

**Duplicate (BHF0853-DUP1)**

**Source: 2406319-01**

Prepared & Analyzed: 06/26/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BHF0853-MS1)**

**Source: 2406319-01**

Prepared & Analyzed: 06/26/24

Chromium, Hexavalent 28.8 0.30 mg/kg dry 29.0 ND 99.4 75-125

**Matrix Spike Dup (BHF0853-MSD1)**

**Source: 2406319-01**

Prepared & Analyzed: 06/26/24

Chromium, Hexavalent 28.2 0.30 mg/kg dry 29.0 ND 97.4 75-125 2.03 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BHF0803 - General Preparation**

**Blank (BHF0803-BLK1)**

Prepared: 06/25/24 Analyzed: 06/27/24

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BHF0803-BS1)**

Prepared: 06/25/24 Analyzed: 06/27/24

Calcium	5.25	0.0500	mg/L wet	5.00	105	70-130
Magnesium	4.98	0.0500	"	5.00	99.6	70-130
Sodium	4.98	0.0500	"	5.00	99.7	70-130

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

### Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

#### Summit Scientific

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

#### Batch BHF0842 - General Preparation

Duplicate (BHF0842-DUP1)		Source: 2406372-01		Prepared: 06/26/24 Analyzed: 06/27/24	
% Solids	91.7		%	90.5	1.34 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BHF0808 - General Preparation**

**Blank (BHF0808-BLK1)**

Prepared: 06/25/24 Analyzed: 06/26/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHF0808-BS1)**

Prepared: 06/25/24 Analyzed: 06/26/24

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

**Duplicate (BHF0808-DUP1)**

**Source: 2406307-12**

Prepared: 06/25/24 Analyzed: 06/26/24

Specific Conductance (EC) 0.417 0.0100 mmhos/cm 0.424 1.59 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/26/24 12:37

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

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

**Batch BHF0809 - General Preparation**

**LCS (BHF0809-BS1)**

Prepared: 06/25/24 Analyzed: 06/26/24

pH	9.15		pH Units	9.18		99.7	95-105		
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**Duplicate (BHF0809-DUP1)**

**Source: 2406307-12**

Prepared: 06/25/24 Analyzed: 06/26/24

pH	7.91		pH Units		8.05			1.75	20
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**Batch BHG0145 - General Preparation**

**LCS (BHG0145-BS1)**

Prepared: 07/08/24 Analyzed: 07/09/24

pH	9.19		pH Units	9.18		100	95-105		
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**Duplicate (BHG0145-DUP1)**

**Source: 2404371-02RE1**

Prepared: 07/08/24 Analyzed: 07/09/24

pH	9.25		pH Units		9.26			0.108	20
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Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Farr C18-25

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/26/24 12:37

### Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
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