

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

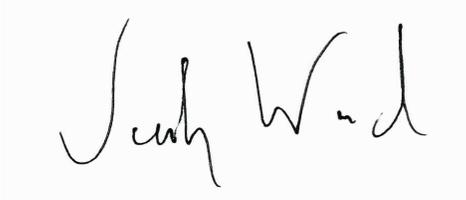
December 04, 2024

Paul Hengan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549

RE: Noble - Booth CC 31-17D Tank  
Work Order #2410159

Enclosed are the results of analyses for samples received by Summit Scientific on 10/10/24 16:33. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank

Project Number: UWRWE-A2250-ABN

Project Manager: Paul Henchan

**Reported:**  
12/04/24 12:30

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-Cent 7FT (Resample)	2410159-01	Soil	10/10/24 00:00	10/10/24 16:33
B01@7.0' (Resample)	2410159-02	Soil	10/10/24 00:00	10/10/24 16:33
B02@7.0' (Resample)	2410159-03	Soil	10/10/24 00:00	10/10/24 16:33

### Case Narrative

Client requested Boron be added to B01@7.0' (Resample) on 10/15/2024.  
Client requested Arsenic be added to B01@7.0' (Resample) and B02@7.0' (Resample) on 10/15/2024.  
Client requested pH be added to B01@7.0' on 10/22/2024.  
This report includes those results.

Project has been renamed per client request on 12/4/2024.

This is a revision of the report originally sent on 10/15/2024 at 09:29 MT.

Summit Scientific

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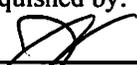
# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2410159	

Send Data To:		Send Invoice To:
Client: Fremont Env	Project Manager: Paul Henahan	Company: Noble
Address:	E-Mail: Paulh@fremontenv.com	Project Name/Location:
City/State/Zip:	jeff@fremontenv.com Ethenb@fremontenv.com	AFE#:
Phone:	Project Name: Booth CC 31-71D Tank	PO/Billing Codes: UWRWE-A2250-ABN
Sampler Name: J6	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	HOLD!!!	<del>AS</del>		
1	SB-Cent 7F+ (Resample)	10/10/24		1			X			X				X		
2	B01@7.0' (Resample)	↓		↓			↓			↓				XX		
3	B02@7.0' (Resample)	↓		↓			↓			↓						
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

Relinquished by: 	Date/Time: 10/10/24 1633	Received by: V-H V-d	Date/Time: 10/10/24 16:33	TAT Business Days	Field DO	Notes:
				Same Day	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	X Field Turb.	
Temperature Upon Receipt: 1.3	Corrected Temperature	IR gun #: 2	HNO3 lot #:			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2410159

Client: Noble Fremont Client Project ID: Book CC 31-710 Tank

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other [ ] Airbill #: [ ]

[x] [ ] [ ] [ ] [ ]

Matrix (Check all that apply) Air [ ] Soil/Solid [x] Water [ ] Other [ ]

Temp (°C) 1.3

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.	[x]	[ ]	[ ]	
If custody seals are present, are they intact? <sup>(1)</sup>	[ ]	[ ]	[x]	
Are samples due within 48 hours present?	[ ]	[x]	[ ]	
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	[ ]	[ ]	[x]	
Is a chain-of-custody (COC) form present and filled out completely? <sup>(1)</sup>	[ ]	[x]	[ ]	No Sample Lines
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	[x]	[ ]	[ ]	
Were all samples received intact? <sup>(1)</sup>	[x]	[ ]	[ ]	
Was adequate sample volume provided? <sup>(1)</sup>	[x]	[ ]	[ ]	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	[x]	[ ]	[ ]	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	[x]	[ ]	[ ]	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	[ ]	[ ]	[x]	
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.	[ ]	[ ]	[x]	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	[ ]	[ ]	[x]	
If dissolved metals are requested, were samples field filtered?	[ ]	[ ]	[x]	

Additional Comments (if any):

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

Control Form #: SRC-001

*W. J. Juel*

Custodian Printed Name

6/10/24 16:33

Date/Time



Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank  
 Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

**SB-Cent 7FT (Resample)  
 2410159-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.37	0.200	mg/kg dry	1	BHJ0477	10/14/24	10/15/24	EPA 6020B	

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

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	93.3		%	1	BHJ0422	10/11/24	10/15/24	Calculation	

Summit Scientific



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 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank  
 Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

**B01@7.0' (Resample)  
 2410159-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0637	10/16/24	10/19/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>5.14</b>	0.200	mg/kg dry	1	BHJ0652	10/16/24	10/18/24	EPA 6020B	

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

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>86.9</b>		%	1	BHJ0627	10/16/24	10/17/24	Calculation	

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

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>10.5</b>		pH Units	1	BHJ1165	10/28/24	10/28/24	EPA 9045D	

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 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank  
 Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

**B02@7.0' (Resample)**

**2410159-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>1.87</b>	0.200	mg/kg dry	1	BHJ0652	10/16/24	10/18/24	EPA 6020B	

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

Date Sampled: **10/10/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>93.9</b>		%	1	BHJ0627	10/16/24	10/17/24	Calculation	

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 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank

Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

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

**Summit Scientific**

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

**Batch BHJ0637 - EPA 3050B**

<b>Blank (BHJ0637-BLK1)</b>				Prepared: 10/16/24 Analyzed: 10/19/24							
Boron	ND	2.00	mg/L								
<b>LCS (BHJ0637-BS1)</b>				Prepared: 10/16/24 Analyzed: 10/19/24							
Boron	5.19	2.00	mg/L	5.00		104	80-120				
<b>Duplicate (BHJ0637-DUP1)</b>				<b>Source: 2410159-02</b>				Prepared: 10/16/24 Analyzed: 10/19/24			
Boron	1.58	2.00	mg/L		1.50			5.21	20		
<b>Matrix Spike (BHJ0637-MS1)</b>				<b>Source: 2410159-02</b>				Prepared: 10/16/24 Analyzed: 10/19/24			
Boron	5.98	2.00	mg/L	4.99	1.50	89.8	75-125				
<b>Matrix Spike Dup (BHJ0637-MSD1)</b>				<b>Source: 2410159-02</b>				Prepared: 10/16/24 Analyzed: 10/19/24			
Boron	6.28	2.00	mg/L	4.99	1.50	95.8	75-125	4.90	25		

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 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank

Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

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

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

**Batch BHJ0477 - EPA 3050B**

**Blank (BHJ0477-BLK1)**

Prepared & Analyzed: 10/14/24

Arsenic ND 0.200 mg/kg wet

**LCS (BHJ0477-BS1)**

Prepared & Analyzed: 10/14/24

Arsenic 41.7 0.200 mg/kg wet 41.0 102 80-120

**Duplicate (BHJ0477-DUP1)**

Source: 2410158-01

Prepared & Analyzed: 10/14/24

Arsenic 1.59 0.200 mg/kg dry 1.67 4.91 20

**Matrix Spike (BHJ0477-MS1)**

Source: 2410158-01

Prepared & Analyzed: 10/14/24

Arsenic 30.5 0.200 mg/kg dry 43.1 1.67 66.9 75-125 QM-05

**Matrix Spike Dup (BHJ0477-MSD1)**

Source: 2410158-01

Prepared & Analyzed: 10/14/24

Arsenic 33.2 0.200 mg/kg dry 45.5 1.67 69.3 75-125 8.57 25 QM-05

**Batch BHJ0652 - EPA 3050B**

**Blank (BHJ0652-BLK1)**

Prepared: 10/16/24 Analyzed: 10/18/24

Arsenic ND 0.200 mg/kg wet

**LCS (BHJ0652-BS1)**

Prepared: 10/16/24 Analyzed: 10/18/24

Arsenic 41.9 0.200 mg/kg wet 41.7 101 80-120

**Duplicate (BHJ0652-DUP1)**

Source: 2410159-02

Prepared: 10/16/24 Analyzed: 10/18/24

Arsenic 2.80 0.200 mg/kg dry 5.14 58.8 20 QR-04

**Matrix Spike (BHJ0652-MS1)**

Source: 2410159-02

Prepared: 10/16/24 Analyzed: 10/18/24

Arsenic 49.7 0.200 mg/kg dry 46.8 5.14 95.4 75-125

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 Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

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

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

**Batch BHJ0652 - EPA 3050B**

**Matrix Spike Dup (BHJ0652-MSD1)**

Source: 2410159-02

Prepared: 10/16/24 Analyzed: 10/18/24

Arsenic	49.3	0.200	mg/kg dry	46.8	5.14	94.4	75-125	0.875	25	
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 Wellington CO, 80549

Project: Noble - Booth CC 31-17D Tank

Project Number: UWRWE-A2250-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 12/04/24 12:30

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

**Summit Scientific**

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

**Batch BHJ0422 - General Preparation**

<b>Duplicate (BHJ0422-DUP1)</b>		<b>Source: 2410159-01</b>			Prepared: 10/11/24 Analyzed: 10/15/24		
% Solids	93.1		%		93.3	0.121	20

**Batch BHJ0627 - General Preparation**

<b>Duplicate (BHJ0627-DUP1)</b>		<b>Source: 2410159-02</b>			Prepared: 10/16/24 Analyzed: 10/17/24		
% Solids	89.3		%		86.9	2.72	20

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Project: Noble - Booth CC 31-17D Tank

Project Number: UWRWE-A2250-ABN  
Project Manager: Paul Henchan

**Reported:**  
12/04/24 12:30

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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