

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 19, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Vega USX A03-05 (BKG)

Work Order #2402444

Enclosed are the results of analyses for samples received by Summit Scientific on 02/26/24 16:30. 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 - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01 0.5'	2402444-01	Soil	02/26/24 13:45	02/26/24 16:30
BKG01 3'	2402444-02	Soil	02/26/24 13:50	02/26/24 16:30
BKG01 4'	2402444-03	Soil	02/26/24 13:55	02/26/24 16:30
BKG02 0.5'	2402444-04	Soil	02/26/24 14:00	02/26/24 16:30
BKG02 3'	2402444-05	Soil	02/26/24 14:05	02/26/24 16:30
BKG02 4'	2402444-06	Soil	02/26/24 14:10	02/26/24 16:30
BKG03 0.5'	2402444-07	Soil	02/26/24 14:15	02/26/24 16:30
BKG03 3'	2402444-08	Soil	02/26/24 14:20	02/26/24 16:30
BKG03 4'	2402444-09	Soil	02/26/24 14:25	02/26/24 16:30
BKG04 0.5'	2402444-10	Soil	02/26/24 14:30	02/26/24 16:30
BKG04 3'	2402444-11	Soil	02/26/24 14:35	02/26/24 16:30
BKG04 4'	2402444-12	Soil	02/26/24 14:40	02/26/24 16:30
BKG05 0.5'	2402444-13	Soil	02/26/24 14:45	02/26/24 16:30
BKG05 3'	2402444-14	Soil	02/26/24 14:50	02/26/24 16:30
BKG05 4'	2402444-15	Soil	02/26/24 14:55	02/26/24 16:30

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

Lab ID	Page	of
2402444		1

	<b>Send Data To:</b>	<b>Send Invoice To:</b>
Client: Fremont Environmental	Project Manager: Paul Henehan	Company: <i>Noble</i>
Address:	E-Mail: Fremont Distribution List	Project Name/Location:
City/State/Zip:		AFE#:
Phone: 303-261-6246	Project Name: <i>Vega USX A03-05 (BK6)</i>	PO/Billing Codes: <i>LWRWF-A2967-ABN</i>
Sampler Name: Stanley Gilbert	Project Number:	Contact: <i>Mike Montoya</i>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested					Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)		TDS, Chloride, Sulfate
1	BK601 0.5'	2/26/24	13:45	1			X			X						X	X		
2	BK601 3'		13:50				X			X						X	X		
3	BK601 4'		13:55				X			X						X	X		
4	BK602 0.5'		14:00				X			X						X	X		
5	BK602 3'		14:05				X			X						X	X		
6	BK602 4'		14:10				X			X						X	X		
7	BK603 0.5'		14:15				X			X						X	X		
8	BK603 3'		14:20				X			X						X	X		
9	BK603 4'		14:25				X			X						X	X		
10	BK604 0.5'		14:30				X			X						X	X		
11	BK604 3'		14:35				X			X						X	X		
12	BK604 4'		14:40				X			X						X	X		
13	BK605 0.5'		14:45				X			X						X	X		
14	BK605 3'		14:50				X			X						X	X		
15	BK605 4'		14:55				X			X						X	X		

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
<i>[Signature]</i>	2/26/24 15:30	Summit North	2/26/24 15:30	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
<i>[Signature]</i>	2/26/24 1030	<i>[Signature]</i>	2/26/24 1030	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: <i>13.1</i>	Corrected Temperature: <i>6</i>	IR gun #:		HNO3 lot #:		

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2402444

Client: Fremont Client Project ID: Vega USX A03-05 (BKG)

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other  Airbill #: \_\_\_\_\_

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

Temp (°C) 17.1 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample times
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

AS  
Custodian Printed Name

2/26/24  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 0.5'**  
**2402444-01 (Soil)**

Summit Scientific

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

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.57</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>42.6</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.70</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>5.47</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.95</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>15.0</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>44.4</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>10.1</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>6.71</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 0.5'**  
**2402444-01 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.236</b>	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>92.5</b>		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.301</b>	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.85</b>		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 3'**  
**2402444-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.65</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>66.8</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.10</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>4.93</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.40</b>	0.400	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0232</b>	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>12.8</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>36.3</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>7.35</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>53.3</b>	0.0500	"	"	"	"	"	"	

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Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 3'**  
**2402444-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.11	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.354	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 4'**  
**2402444-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.42</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>44.5</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.40</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>3.89</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.34</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>10.5</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>66.3</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>20.3</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>149</b>	0.0500	"	"	"	"	"	"	

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Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG01 4'**  
**2402444-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.11	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.07	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.44		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG02 0.5'**  
**2402444-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>3.11</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	<b>72.8</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.245</b>	0.200	"	"	"	"	"	"	
Copper	<b>5.22</b>	0.400	"	"	"	"	"	"	
Lead	<b>8.14</b>	0.200	"	"	"	"	"	"	
Nickel	<b>4.47</b>	0.400	"	"	"	"	"	"	
Silver	<b>0.0286</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>19.8</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>50.1</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	<b>6.66</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>4.80</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
 Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG02 0.5'**  
**2402444-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.169	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.246	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG02 3'**  
**2402444-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.30</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>41.5</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.80</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>4.32</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.23</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>11.5</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>23.4</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>4.46</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>44.8</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG02 3'**  
**2402444-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.22	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.276	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.95		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG02 4'**  
**2402444-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.49</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>57.4</b>	0.400	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.208</b>	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.68</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>4.97</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.95</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>11.2</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>397</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>85.2</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>280</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
 Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG02 4'**  
**2402444-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.34	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.3		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.00	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.05		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG03 0.5'**  
**2402444-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.93</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>40.6</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.74</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>5.76</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.87</b>	0.400	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0242</b>	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>15.0</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>159</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>53.0</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>6.88</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG03 0.5'**  
**2402444-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.121	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.3		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.215	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.45		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG03 3'**  
**2402444-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	<b>3.28</b>	0.200		mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	<b>355</b>	0.400		"	"	"	"	"	"	
Cadmium	<b>0.214</b>	0.200		"	"	"	"	"	"	
Copper	<b>5.87</b>	0.400		"	"	"	"	"	"	
Lead	<b>10.2</b>	0.200		"	"	"	"	"	"	
Nickel	<b>3.68</b>	0.400		"	"	"	"	"	"	
Silver	<b>0.0372</b>	0.0200		"	"	"	"	"	"	
Zinc	<b>12.3</b>	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>139</b>	0.0500		mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	<b>33.8</b>	0.0500		"	"	"	"	"	"	
Sodium	<b>65.6</b>	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG03 3'**  
**2402444-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.29	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.3		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.980	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG03 4'**  
**2402444-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	<b>4.00</b>	0.200		mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	<b>73.1</b>	0.400		"	"	"	"	"	"	
Cadmium	<b>0.239</b>	0.200		"	"	"	"	"	"	
Copper	<b>4.88</b>	0.400		"	"	"	"	"	"	
Lead	<b>8.41</b>	0.200		"	"	"	"	"	"	
Nickel	<b>4.98</b>	0.400		"	"	"	"	"	"	
Silver	<b>0.0317</b>	0.0200		"	"	"	"	"	"	
Zinc	<b>20.6</b>	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>136</b>	0.0500		mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	<b>55.0</b>	0.0500		"	"	"	"	"	"	
Sodium	<b>78.8</b>	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG03 4'**  
**2402444-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.44	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.9		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.85		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG04 0.5'**  
**2402444-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>3.12</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>40.5</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.57</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>5.60</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.37</b>	0.400	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0215</b>	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>15.4</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>46.6</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>13.5</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>5.80</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG04 0.5'**  
**2402444-10 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.192</b>	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>91.0</b>		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.208</b>	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.34</b>		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG04 3'**  
**2402444-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.76</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>45.9</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.61</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>4.04</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.07</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>11.4</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>96.6</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>53.1</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>46.8</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG04 3'**  
**2402444-11 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.950</b>	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>86.4</b>		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.898</b>	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.22</b>		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG04 4'**  
**2402444-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.12	0.200		mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	76.8	0.400		"	"	"	"	"	"	
Cadmium	0.241	0.200		"	"	"	"	"	"	
Copper	4.13	0.400		"	"	"	"	"	"	
Lead	6.56	0.200		"	"	"	"	"	"	
Nickel	4.69	0.400		"	"	"	"	"	"	
Silver	0.0288	0.0200		"	"	"	"	"	"	
Zinc	17.8	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	26.6	0.0500		mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	6.12	0.0500		"	"	"	"	"	"	
Sodium	4.66	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG04 4'**  
**2402444-12 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.212</b>	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>91.6</b>		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.180</b>	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.20</b>		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG05 0.5'**  
**2402444-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>2.64</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	<b>41.7</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	<b>3.72</b>	0.400	"	"	"	"	"	"	
Lead	<b>5.63</b>	0.200	"	"	"	"	"	"	
Nickel	<b>3.40</b>	0.400	"	"	"	"	"	"	
Silver	<b>0.0208</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>15.9</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>42.2</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	<b>9.33</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>4.72</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG05 0.5'**  
**2402444-13 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.171	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.3		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.221	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.65		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG05 3'**  
**2402444-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>3.37</b>	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
<b>Barium</b>	<b>103</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.62</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>6.20</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.45</b>	0.400	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0273</b>	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>17.1</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>73.9</b>	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
<b>Magnesium</b>	<b>17.9</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>4.40</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
 Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**BKG05 3'**  
**2402444-14 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.119	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.5		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.144	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.18		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG05 4'**  
**2402444-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0367	03/13/24	03/15/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.31	0.200	mg/kg dry	1	BHC0249	03/09/24	03/12/24	EPA 6020B	
Barium	81.6	0.400	"	"	"	"	"	"	
Cadmium	0.251	0.200	"	"	"	"	"	"	
Copper	4.15	0.400	"	"	"	"	"	"	
Lead	6.62	0.200	"	"	"	"	"	"	
Nickel	4.93	0.400	"	"	"	"	"	"	
Silver	0.0277	0.0200	"	"	"	"	"	"	
Zinc	17.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0465	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	28.0	0.0500	mg/L dry	1	BHC0228	03/08/24	03/15/24	EPA 6020B	
Magnesium	6.09	0.0500	"	"	"	"	"	"	
Sodium	4.39	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)  
Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**BKG05 4'**  
**2402444-15 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.196</b>	0.00100	units	1	BHC0634	03/18/24	03/18/24	Calculation	

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

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>92.3</b>		%	1	BHC0210	03/08/24	03/08/24	Calculation	

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

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.182</b>	0.0100	mmhos/cm	1	BHC0230	03/08/24	03/09/24	EPA 120.1	

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

Date Sampled: **02/26/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.64</b>		pH Units	1	BHC0229	03/08/24	03/09/24	EPA 9045D	

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 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**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 BHC0367 - EPA 3050B**

<b>Blank (BHC0367-BLK1)</b>				Prepared: 03/13/24 Analyzed: 03/15/24							
Boron	ND	2.00	mg/L								
<b>LCS (BHC0367-BS1)</b>				Prepared: 03/13/24 Analyzed: 03/15/24							
Boron	5.00	2.00	mg/L	5.00		99.9	80-120				
<b>Duplicate (BHC0367-DUP1)</b>				<b>Source: 2402444-01</b>				Prepared: 03/13/24 Analyzed: 03/15/24			
Boron	0.452	2.00	mg/L		0.496			9.30	20		
<b>Matrix Spike (BHC0367-MS1)</b>				<b>Source: 2402444-01</b>				Prepared: 03/13/24 Analyzed: 03/15/24			
Boron	5.15	2.00	mg/L	5.00	0.496	93.2	75-125				
<b>Matrix Spike Dup (BHC0367-MSD1)</b>				<b>Source: 2402444-01</b>				Prepared: 03/13/24 Analyzed: 03/15/24			
Boron	5.38	2.00	mg/L	5.00	0.496	97.7	75-125	4.35	25		

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Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

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

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

**Batch BHC0249 - EPA 3050B**

**Blank (BHC0249-BLK1)**

Prepared: 03/09/24 Analyzed: 03/12/24

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 (BHC0249-BS1)**

Prepared: 03/09/24 Analyzed: 03/12/24

Arsenic	40.2	0.200	mg/kg wet	40.0	100	80-120
Barium	39.7	0.400	"	40.0	99.3	80-120
Cadmium	2.02	0.200	"	2.00	101	80-120
Copper	43.2	0.400	"	40.0	108	80-120
Lead	20.0	0.200	"	20.0	99.8	80-120
Nickel	42.6	0.400	"	40.0	106	80-120
Silver	2.02	0.0200	"	2.00	101	80-120
Zinc	43.1	0.400	"	40.0	108	80-120
Selenium	4.60	0.260	"	4.00	115	80-120

**Duplicate (BHC0249-DUP1)**

Source: 2402444-01

Prepared: 03/09/24 Analyzed: 03/12/24

Arsenic	2.86	0.200	mg/kg dry	2.57	10.8	20
Barium	42.0	0.400	"	42.6	1.34	20
Cadmium	0.150	0.200	"	0.145	3.81	20
Copper	3.89	0.400	"	3.70	4.96	20
Lead	5.66	0.200	"	5.47	3.54	20
Nickel	3.11	0.400	"	2.95	5.21	20
Silver	0.0173	0.0200	"	0.0164	5.13	20
Zinc	15.9	0.400	"	15.0	6.01	20
Selenium	ND	0.260	"	ND		20

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

**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 BHC0249 - EPA 3050B**

**Matrix Spike (BHC0249-MS1)**

Source: 2402444-01

Prepared: 03/09/24 Analyzed: 03/12/24

Arsenic	47.2	0.200	mg/kg dry	43.2	2.57	103	75-125		
Barium	82.7	0.400	"	43.2	42.6	92.8	75-125		
Cadmium	2.39	0.200	"	2.16	0.145	104	75-125		
Copper	36.9	0.400	"	43.2	3.70	76.7	75-125		
Lead	28.0	0.200	"	21.6	5.47	104	75-125		
Nickel	35.9	0.400	"	43.2	2.95	76.3	75-125		
Silver	2.20	0.0200	"	2.16	0.0164	101	75-125		
Zinc	48.4	0.400	"	43.2	15.0	77.3	75-125		
Selenium	4.65	0.260	"	4.32	ND	108	75-125		

**Matrix Spike Dup (BHC0249-MSD1)**

Source: 2402444-01

Prepared: 03/09/24 Analyzed: 03/12/24

Arsenic	47.2	0.200	mg/kg dry	43.2	2.57	103	75-125	0.0724	25
Barium	82.8	0.400	"	43.2	42.6	93.0	75-125	0.128	25
Cadmium	2.42	0.200	"	2.16	0.145	105	75-125	0.917	25
Copper	37.1	0.400	"	43.2	3.70	77.3	75-125	0.688	25
Lead	28.2	0.200	"	21.6	5.47	105	75-125	0.793	25
Nickel	36.4	0.400	"	43.2	2.95	77.3	75-125	1.22	25
Silver	2.19	0.0200	"	2.16	0.0164	101	75-125	0.571	25
Zinc	49.0	0.400	"	43.2	15.0	78.8	75-125	1.29	25
Selenium	4.45	0.260	"	4.32	ND	103	75-125	4.47	25

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

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

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

**Batch BHC0465 - 3060A Mod**

**Blank (BHC0465-BLK1)**

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent      ND      0.30    mg/kg wet

**LCS (BHC0465-BS1)**

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent      24.6      0.30    mg/kg wet      25.0      98.2      80-120

**Duplicate (BHC0465-DUP1)**

**Source: 2402444-01**

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent      ND      0.30    mg/kg dry      ND      20

**Matrix Spike (BHC0465-MS1)**

**Source: 2402444-01**

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent      29.6      0.30    mg/kg dry      27.0      ND      110      75-125

**Matrix Spike Dup (BHC0465-MSD1)**

**Source: 2402444-01**

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent      29.6      0.30    mg/kg dry      27.0      ND      110      75-125      0.00      20

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Project: Noble - Vega USX A03-05 (BKG)

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 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

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

**Summit Scientific**

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

**Batch BHC0228 - General Preparation**

**Blank (BHC0228-BLK1)**

Prepared: 03/08/24 Analyzed: 03/15/24

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

**LCS (BHC0228-BS1)**

Prepared: 03/08/24 Analyzed: 03/15/24

Calcium	5.15	0.0500	mg/L wet	5.00	103	70-130				
Magnesium	5.18	0.0500	"	5.00	104	70-130				
Sodium	5.43	0.0500	"	5.00	109	70-130				

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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

**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 BHC0210 - General Preparation**


**Duplicate (BHC0210-DUP1)**

**Source: 2402444-01**

Prepared & Analyzed: 03/08/24

% Solids	92.8		%		92.5			0.341		20	
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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

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

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

**Batch BHC0230 - General Preparation**

**Blank (BHC0230-BLK1)**

Prepared: 03/08/24 Analyzed: 03/09/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHC0230-BS1)**

Prepared: 03/08/24 Analyzed: 03/09/24

Specific Conductance (EC) 0.146 0.0100 mmhos/cm 0.150 97.6 95-105

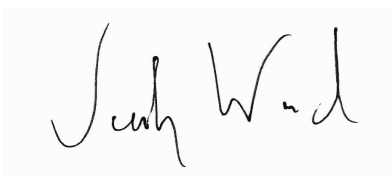
**Duplicate (BHC0230-DUP1)**

**Source: 2402444-01**

Prepared: 03/08/24 Analyzed: 03/09/24

Specific Conductance (EC) 0.292 0.0100 mmhos/cm 0.301 2.97 20

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 Wellington CO, 80549

Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN  
 Project Manager: Paul Henchan

**Reported:**  
 03/19/24 13:56

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

**Summit Scientific**

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

**Batch BHC0229 - General Preparation**

**LCS (BHC0229-BS1)**

Prepared: 03/08/24 Analyzed: 03/09/24

pH	9.03	pH Units	9.18	98.4	95-105
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**Duplicate (BHC0229-DUP1)**

Source: 2402444-01

Prepared: 03/08/24 Analyzed: 03/09/24

pH	7.77	pH Units	7.85	1.02	20
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Project: Noble - Vega USX A03-05 (BKG)

Project Number: UWRWE-A2967-ABN

Project Manager: Paul Henchan

**Reported:**  
03/19/24 13:56

### 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