Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

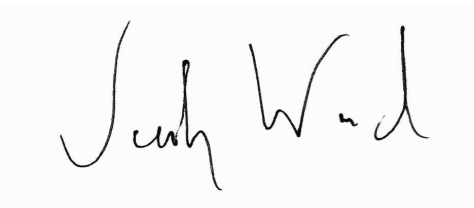
January 30, 2024

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Huntsman G 13-9 (BKG)
Work Order #2401385

Enclosed are the results of analyses for samples received by Summit Scientific on 01/23/24 15:04. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacob Wood For Paul Shrewsbury
President

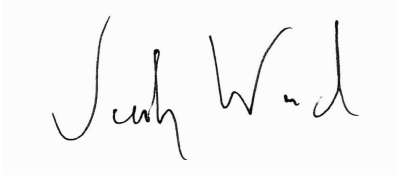
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG06@4.0'	2401385-01	Soil	01/23/24 00:00	01/23/24 15:04

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.

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2401385	

	Send Data To:	Send Invoice To:
Client: Fremont En	Project Manager: Paul Henehan	Company: Noble
Address:	E-Mail: Paulh@Fremontenv.com	Project Name/Location: Huntsman G 13-9
City/State/Zip:	Jeffg@Fremontenv.com Ethanb@Fremontenv.com	AFE#:
Phone:	Project Name: Huntsman G 13-9 (BK6)	PO/Billing Codes: UWRWE-A3502-ABN
Sampler Name: JG	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	EC, pH, SAR, Boron	Metals (915)							
1	BK606@4.0'	01/22/24		2			X			X			X	X							
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time:	Received by:	Date/Time:
[signature]	01/23/24 1504	J.h Vd	1/23/24 15:04
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

TAT Business Days		Field DO	
Same Day		Field EC	
1 Day		Field ORP	
2 Days		Field pH	
3 Days		Field Temp.	
Standard	X	Field Turb.	

Notes:

Bill to Noble

Temperature Upon Receipt: 15.7 Corrected Temperature: IR gun #: 2 HNO3 lot #:

S2

Sample Receipt Checklist

S2 Work Order# 2401385

Client: Fremont Client Project ID: Huntsman G 13-9 (BKG)

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

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

Temp (°C) 15.7 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? (1) **NOTE:** If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	X			on ice
If custody seals are present, are they intact? (1)			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^{2+}), Hexavalent Chromium (Cr^{6+}, 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? (1)		X		No sample times
Is the COC properly relinquished by the client w/ date and time recorded? (1)	X			
Were all samples received intact? (1)	X			
Was adequate sample volume provided? (1)	X			
Does the COC agree with the number and type of sample bottles received? (1)	X			
Do the sample IDs on the bottle labels match the COC?(1)	X			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			X	
Are samples preserved that require preservation **(excluding cooling)?** (1) Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			X	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

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

J.J. Wall
Custodian Printed Name

1/23/24 15:04
Date/Time

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

BKG06@4.0'

2401385-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHA0844	01/24/24	01/25/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**8.14**	0.200	mg/kg dry	1	BHA0823	01/24/24	01/25/24	EPA 6020B	
Barium	**42.7**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**3.32**	0.400	"	"	"	"	"	"	
Lead	**4.95**	0.200	"	"	"	"	"	"	
Nickel	**2.46**	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	**16.3**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA0846	01/24/24	01/24/24	EPA 7196A	

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

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**66.1**	0.0500	mg/L dry	1	BHA0899	01/25/24	01/26/24	EPA 6020B	
Magnesium	**121**	0.0500	"	"	"	"	"	"	
Sodium	**310**	0.0500	"	"	"	"	"	"	

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.

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

BKG06@4.0'

2401385-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**5.24**	0.00100	units	1	BHA0998	01/29/24	01/29/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**91.9**		%	1	BHA0824	01/24/24	01/24/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

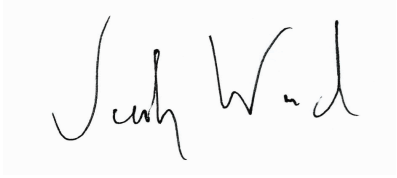
Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**3.11**	0.0100	mmhos/cm	1	BHA0923	01/26/24	01/26/24	EPA 120.1	

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

Date Sampled: **01/23/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.49**		pH Units	1	BHA0922	01/26/24	01/26/24	EPA 9045D	



S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0844 - EPA 3050B										
Blank (BHA0844-BLK1)				Prepared: 01/24/24 Analyzed: 01/25/24						
Boron	ND	2.00	mg/L							
LCS (BHA0844-BS1)				Prepared: 01/24/24 Analyzed: 01/25/24						
Boron	4.60	2.00	mg/L	5.00		92.1	80-120			
Duplicate (BHA0844-DUP1)		**Source: 2401365-01**		Prepared: 01/24/24 Analyzed: 01/25/24						
Boron	ND	2.00	mg/L		ND				20	
Matrix Spike (BHA0844-MS1)		**Source: 2401365-01**		Prepared: 01/24/24 Analyzed: 01/25/24						
Boron	5.18	2.00	mg/L	5.00	ND	104	75-125			
Matrix Spike Dup (BHA0844-MSD1)		**Source: 2401365-01**		Prepared: 01/24/24 Analyzed: 01/25/24						
Boron	4.91	2.00	mg/L	5.00	ND	98.1	75-125	5.54	25	

Summit Scientific

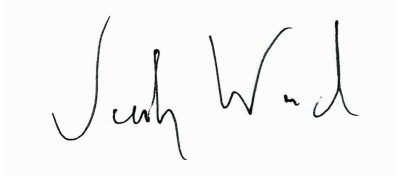
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0823 - EPA 3050B										
Blank (BHA0823-BLK1)				Prepared: 01/24/24 Analyzed: 01/25/24						
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 (BHA0823-BS1)				Prepared: 01/24/24 Analyzed: 01/25/24						
Arsenic	33.3	0.200	mg/kg wet	40.0		83.1	80-120			
Barium	33.0	0.400	"	40.0		82.5	80-120			
Cadmium	1.64	0.200	"	2.00		82.0	80-120			
Copper	34.6	0.400	"	40.0		86.4	80-120			
Lead	16.3	0.200	"	20.0		81.3	80-120			
Nickel	34.3	0.400	"	40.0		85.8	80-120			
Silver	1.67	0.0200	"	2.00		83.4	80-120			
Zinc	34.7	0.400	"	40.0		86.7	80-120			
Selenium	3.41	0.260	"	4.00		85.2	80-120			
Duplicate (BHA0823-DUP1)	**Source: 2401364-01**			Prepared: 01/24/24 Analyzed: 01/25/24						
Arsenic	0.869	0.200	mg/kg dry		0.846			2.67	20	
Barium	17.5	0.400	"		19.4			10.1	20	
Cadmium	0.0753	0.200	"		0.0717			5.01	20	
Copper	1.66	0.400	"		1.50			9.95	20	
Lead	2.48	0.200	"		2.48			0.00	20	
Nickel	1.47	0.400	"		1.41			4.43	20	
Silver	0.00614	0.0200	"		0.00778			23.5	20	QR-01
Zinc	6.62	0.400	"		6.70			1.13	20	
Selenium	ND	0.260	"		ND				20	



S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0823 - EPA 3050B										
Matrix Spike (BHA0823-MS1)	**Source: 2401364-01**			Prepared: 01/24/24 Analyzed: 01/25/24						
Arsenic	33.2	0.200	mg/kg dry	40.9	0.846	79.1	75-125			
Barium	50.8	0.400	"	40.9	19.4	76.8	75-125			
Cadmium	1.64	0.200	"	2.05	0.0717	76.7	75-125			
Copper	30.5	0.400	"	40.9	1.50	70.8	75-125			QM-05
Lead	18.3	0.200	"	20.5	2.48	77.3	75-125			
Nickel	30.1	0.400	"	40.9	1.41	70.1	75-125			QM-05
Silver	1.59	0.0200	"	2.05	0.00778	77.1	75-125			
Zinc	36.3	0.400	"	40.9	6.70	72.2	75-125			QM-05
Selenium	3.07	0.260	"	4.09	ND	75.1	75-125			
Matrix Spike Dup (BHA0823-MSD1)	**Source: 2401364-01**			Prepared: 01/24/24 Analyzed: 01/25/24						
Arsenic	33.2	0.200	mg/kg dry	40.9	0.846	78.9	75-125	0.187	25	
Barium	50.1	0.400	"	40.9	19.4	75.1	75-125	1.42	25	
Cadmium	1.64	0.200	"	2.05	0.0717	76.5	75-125	0.250	25	
Copper	30.2	0.400	"	40.9	1.50	70.1	75-125	0.912	25	QM-05
Lead	18.2	0.200	"	20.5	2.48	76.6	75-125	0.723	25	
Nickel	30.1	0.400	"	40.9	1.41	70.0	75-125	0.132	25	QM-05
Silver	1.57	0.0200	"	2.05	0.00778	76.5	75-125	0.829	25	
Zinc	35.4	0.400	"	40.9	6.70	70.1	75-125	2.35	25	QM-05
Selenium	3.16	0.260	"	4.09	ND	77.2	75-125	2.73	25	

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.

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0846 - 3060A_Mod										
Blank (BHA0846-BLK1)				Prepared & Analyzed: 01/24/24						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHA0846-BS1)				Prepared & Analyzed: 01/24/24						
Chromium, Hexavalent	22.6	0.30	mg/kg wet	25.0		90.6	80-120			
Duplicate (BHA0846-DUP1)	**Source: 2311401-01**			Prepared & Analyzed: 01/24/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHA0846-MS1)	**Source: 2311401-01**			Prepared & Analyzed: 01/24/24						
Chromium, Hexavalent	25.2	0.30	mg/kg dry	27.4	ND	92.2	75-125			
Matrix Spike Dup (BHA0846-MSD1)	**Source: 2311401-01**			Prepared & Analyzed: 01/24/24						
Chromium, Hexavalent	25.3	0.30	mg/kg dry	27.4	ND	92.4	75-125	0.217	20	

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.

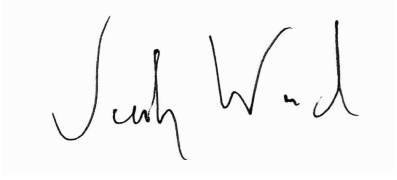
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0899 - General Preparation										
Blank (BHA0899-BLK1)				Prepared: 01/25/24 Analyzed: 01/26/24						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BHA0899-BS1)				Prepared: 01/25/24 Analyzed: 01/26/24						
Calcium	5.71	0.0500	mg/L wet	5.00		114	70-130			
Magnesium	5.54	0.0500	"	5.00		111	70-130			
Sodium	5.40	0.0500	"	5.00		108	70-130			



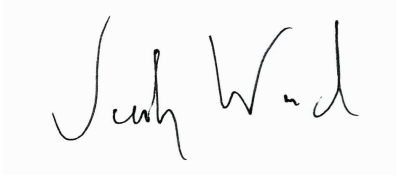
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0824 - General Preparation										
Duplicate (BHA0824-DUP1)		**Source: 2312187-24**		Prepared & Analyzed: 01/24/24						
% Solids	89.9		%		90.4			0.539	20	



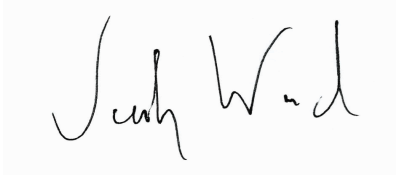
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0923 - General Preparation										
Blank (BHA0923-BLK1)				Prepared & Analyzed: 01/26/24						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BHA0923-BS1)				Prepared & Analyzed: 01/26/24						
Specific Conductance (EC)	0.155	0.0100	mmhos/cm	0.150		104	95-105			
Duplicate (BHA0923-DUP1)		**Source: 2401383-01**		Prepared & Analyzed: 01/26/24						
Specific Conductance (EC)	0.663	0.0100	mmhos/cm		0.678			2.31	20	



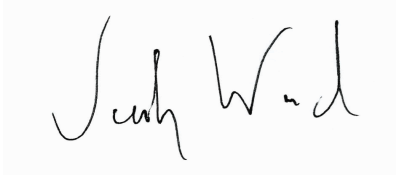
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHA0922 - General Preparation										
LCS (BHA0922-BS1)				Prepared & Analyzed: 01/26/24						
pH	9.30		pH Units	9.18		101	95-105			
Duplicate (BHA0922-DUP1)		**Source: 2401383-01**		Prepared & Analyzed: 01/26/24						
pH	6.35		pH Units		6.42			1.10	20	



Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Huntsman G 13-9 (BKG) Project Number: UWRWE-A3502-ABN Project Manager: Paul Henehan	**Reported:** 01/30/24 10:52

Notes and Definitions

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-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