Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 02, 2024

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Farr T4N-R64W-S18 L01
Work Order #2407031

Enclosed are the results of analyses for samples received by Summit Scientific on 07/02/24 15:22. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Natalie Tessier For Paul Shrewsbury
President

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E01@12.0'	2407031-01	Soil	07/02/24 00:00	07/02/24 15:22

Case Narrative

Rerun analyses were performed by client request on 7/24/24.
The rerun results included in this report are denoted with "RE#."

This is a revision of the report originally sent on 7/9/24 at 13:59 MT.

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.

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

Lab ID	Page 1 of 1
2407031	

	Send Data To:	Send Invoice To:
Client: Fremont Env	Project Manager: Paul Heneban	Company: Noble
Address:	E-Mail: Paulh@fremontenv.com	Project Name/Location:
City/State/Zip:	jeffg@fremontenv.com Ethomb@fremontenv.com	AFE#:
Phone:	Project Name: Farr T4N-R64W-S18 L01	PO/Billing Codes:
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 ___	BTEX+N	TMBs (915)	DRO, GRO	PAHs (915)	EC, PH, SAR, Boron	Metals (915)			
1	E01@12.0'	7/2/24		2			X			X			X	X	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]	7/2/24 1528	[signature]	7/2/24 15:22
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

TAT Business Days	
Same Day	X
1 Day	
2 Days	
3 Days	
Standard	

Field DO	
Field EC	
Field ORP	
Field pH	
Field Temp.	
Field Turb.	

Notes:

Temperature Upon Receipt: 25.8 | Corrected Temperature: | IR gun #: 2 | HNO3 lot #:

S2

Sample Receipt Checklist

S2 Work Order# 2407031

Client: Fremont Client Project ID: Furr T4N-R64W-S18 L61

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) 25.8 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			Same day
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.

VL VL
Custodian Printed Name

7/2/24 15:22
Date/Time

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

E01@12.0'

2407031-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0087	07/02/24	07/03/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0391	*97.6 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0401	*100 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	*102 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0088	"	07/03/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.05	*72.4 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

E01@12.0'

2407031-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0097	07/03/24	07/04/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0144	*43.3 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0162	*48.7 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0112	07/03/24	07/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

E01@12.0'

2407031-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	**61.6**	0.400	mg/kg dry	1	BHG0093	07/03/24	07/04/24	EPA 6020B	
Cadmium	**0.292**	0.200	"	"	"	"	"	"	
Copper	**9.25**	0.400	"	"	"	"	"	"	
Lead	**9.00**	0.200	"	"	"	"	"	"	
Nickel	**10.5**	0.400	"	"	"	"	"	"	
Silver	**0.0281**	0.0200	"	"	"	"	"	"	
Zinc	**42.0**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0107	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**1670**	0.0500	mg/L dry	1	BHG0089	07/02/24	07/03/24	EPA 6020B	
Magnesium	**177**	0.0500	"	"	"	"	"	"	
Sodium	**21.7**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.135**	0.00100	units	1	BHG0192	07/08/24	07/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86.4**		%	1	BHG0146	07/08/24	07/08/24	Calculation	

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

E01@12.0'

2407031-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.616**	0.0100	mmhos/cm	1	BHG0091	07/02/24	07/08/24	EPA 120.1	

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

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.07**		pH Units	1	BHG0090	07/02/24	07/08/24	EPA 9045D	

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

E01@12.0'

2407031-01RE1 (Soil)

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Total Metals by EPA 6020B

Date Sampled: **07/02/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**3.57**	0.200	mg/kg dry	1	BHG0875	07/03/24	08/02/24	EPA 6020B	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHG0087 - EPA 5030 Soil MS										
Blank (BHG0087-BLK1)				Prepared: 07/02/24 Analyzed: 07/03/24						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0351*		*"*	*0.0400*		*87.8*	*50-150*			
Surrogate: Toluene-d8	*0.0405*		*"*	*0.0400*		*101*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0406*		*"*	*0.0400*		*102*	*50-150*			
LCS (BHG0087-BS1)				Prepared: 07/02/24 Analyzed: 07/03/24						
Benzene	0.0802	0.0020	mg/kg	0.100		80.2	70-130			
Toluene	0.0921	0.0050	"	0.100		92.1	70-130			
Ethylbenzene	0.0929	0.0050	"	0.100		92.9	70-130			
m,p-Xylene	0.184	0.010	"	0.200		91.8	70-130			
o-Xylene	0.0918	0.0050	"	0.100		91.8	70-130			
1,2,4-Trimethylbenzene	0.0856	0.0050	"	0.100		85.6	70-130			
1,3,5-Trimethylbenzene	0.0865	0.0050	"	0.100		86.5	70-130			
Naphthalene	0.0728	0.0038	"	0.100		72.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0362*		*"*	*0.0400*		*90.4*	*50-150*			
Surrogate: Toluene-d8	*0.0425*		*"*	*0.0400*		*106*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0414*		*"*	*0.0400*		*103*	*50-150*			
Matrix Spike (BHG0087-MS1)		**Source: 2407019-01**		Prepared: 07/02/24 Analyzed: 07/03/24						
Benzene	0.0740	0.0020	mg/kg	0.100	ND	74.0	70-130			
Toluene	0.0853	0.0050	"	0.100	ND	85.3	70-130			
Ethylbenzene	0.0793	0.0050	"	0.100	ND	79.3	70-130			
m,p-Xylene	0.159	0.010	"	0.200	ND	79.7	70-130			
o-Xylene	0.0785	0.0050	"	0.100	ND	78.5	70-130			
1,2,4-Trimethylbenzene	0.0729	0.0050	"	0.100	ND	72.9	70-130			
1,3,5-Trimethylbenzene	0.0736	0.0050	"	0.100	ND	73.6	70-130			
Naphthalene	0.0678	0.0038	"	0.100	ND	67.8	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	*0.0360*		*"*	*0.0400*		*90.0*	*50-150*			
Surrogate: Toluene-d8	*0.0427*		*"*	*0.0400*		*107*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0394*		*"*	*0.0400*		*98.5*	*50-150*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHG0087 - EPA 5030 Soil MS										
Matrix Spike Dup (BHG0087-MSD1)	**Source: 2407019-01**			Prepared: 07/02/24 Analyzed: 07/03/24						
Benzene	0.0772	0.0020	mg/kg	0.100	ND	77.2	70-130	4.29	30	
Toluene	0.0897	0.0050	"	0.100	ND	89.7	70-130	5.04	30	
Ethylbenzene	0.0800	0.0050	"	0.100	ND	80.0	70-130	0.829	30	
m,p-Xylene	0.161	0.010	"	0.200	ND	80.6	70-130	1.12	30	
o-Xylene	0.0793	0.0050	"	0.100	ND	79.3	70-130	1.03	30	
1,2,4-Trimethylbenzene	0.0747	0.0050	"	0.100	ND	74.7	70-130	2.44	30	
1,3,5-Trimethylbenzene	0.0760	0.0050	"	0.100	ND	76.0	70-130	3.21	30	
Naphthalene	0.0699	0.0038	"	0.100	ND	69.9	70-130	3.05	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	*0.0351*		*"*	*0.0400*		*87.7*	*50-150*			
Surrogate: Toluene-d8	*0.0420*		*"*	*0.0400*		*105*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0392*		*"*	*0.0400*		*97.9*	*50-150*			

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHG0088 - EPA 3550A										
Blank (BHG0088-BLK1)				Prepared: 07/02/24 Analyzed: 07/03/24						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*11.1*		*"*	*12.5*		*88.8*	*30-150*			
LCS (BHG0088-BS1)				Prepared: 07/02/24 Analyzed: 07/03/24						
C10-C28 (DRO)	509	50	mg/kg	500		102	70-130			
Surrogate: o-Terphenyl	*18.1*		*"*	*12.5*		*145*	*30-150*			
Matrix Spike (BHG0088-MS1)	**Source: 2407019-01**			Prepared: 07/02/24 Analyzed: 07/03/24						
C10-C28 (DRO)	406	50	mg/kg	500	ND	81.1	70-130			
Surrogate: o-Terphenyl	*13.2*		*"*	*12.5*		*106*	*30-150*			
Matrix Spike Dup (BHG0088-MSD1)	**Source: 2407019-01**			Prepared: 07/02/24 Analyzed: 07/03/24						
C10-C28 (DRO)	400	50	mg/kg	500	ND	80.0	70-130	1.41	20	
Surrogate: o-Terphenyl	*13.1*		*"*	*12.5*		*105*	*30-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHG0097 - EPA 5030 Soil MS										
Blank (BHG0097-BLK1)				Prepared & Analyzed: 07/03/24						
Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	*0.0234*		*"*	*0.0333*		*70.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0241*		*"*	*0.0333*		*72.3*	*40-150*			
LCS (BHG0097-BS1)				Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0257	0.00500	mg/kg	0.0333		77.1	31-137			
Anthracene	0.0256	0.00500	"	0.0333		76.7	30-120			
Benzo (a) anthracene	0.0259	0.00500	"	0.0333		77.6	30-120			
Benzo (a) pyrene	0.0231	0.00500	"	0.0333		69.3	30-120			
Benzo (b) fluoranthene	0.0251	0.00500	"	0.0333		75.4	30-120			
Benzo (k) fluoranthene	0.0261	0.00500	"	0.0333		78.4	30-120			
Chrysene	0.0259	0.00500	"	0.0333		77.8	30-120			
Dibenz (a,h) anthracene	0.0196	0.00500	"	0.0333		58.9	30-120			
Fluoranthene	0.0258	0.00500	"	0.0333		77.4	30-120			
Fluorene	0.0252	0.00500	"	0.0333		75.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0199	0.00500	"	0.0333		59.8	30-120			
Pyrene	0.0287	0.00500	"	0.0333		86.1	35-142			
1-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.3	35-142			
2-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0254*		*"*	*0.0333*		*76.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0273*		*"*	*0.0333*		*81.8*	*40-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BHG0097 - EPA 5030 Soil MS										
Matrix Spike (BHG0097-MS1)	**Source: 2407018-01**			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0186	0.00500	mg/kg	0.0333	ND	55.7	31-137			
Anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Benzo (a) anthracene	0.0186	0.00500	"	0.0333	ND	55.8	30-120			
Benzo (a) pyrene	0.0163	0.00500	"	0.0333	ND	49.0	30-120			
Benzo (b) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120			
Benzo (k) fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Chrysene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Dibenz (a,h) anthracene	0.0137	0.00500	"	0.0333	ND	41.1	30-120			
Fluoranthene	0.0182	0.00500	"	0.0333	ND	54.7	30-120			
Fluorene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0143	0.00500	"	0.0333	ND	42.9	30-120			
Pyrene	0.0195	0.00500	"	0.0333	ND	58.5	35-142			
1-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.4	15-130			
2-Methylnaphthalene	0.0159	0.00500	"	0.0333	ND	47.7	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0179*		*"*	*0.0333*		*53.7*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0191*		*"*	*0.0333*		*57.2*	*40-150*			
Matrix Spike Dup (BHG0097-MSD1)	**Source: 2407018-01**			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0197	0.00500	mg/kg	0.0333	ND	59.0	31-137	5.78	30	
Anthracene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	6.32	30	
Benzo (a) anthracene	0.0198	0.00500	"	0.0333	ND	59.3	30-120	5.95	30	
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	7.78	30	
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.1	30-120	4.06	30	
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.6	30-120	4.66	30	
Chrysene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	6.02	30	
Dibenz (a,h) anthracene	0.0149	0.00500	"	0.0333	ND	44.8	30-120	8.71	30	
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	6.75	30	
Fluorene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	5.97	30	
Indeno (1,2,3-cd) pyrene	0.0147	0.00500	"	0.0333	ND	44.2	30-120	3.10	30	
Pyrene	0.0210	0.00500	"	0.0333	ND	63.1	35-142	7.58	30	
1-Methylnaphthalene	0.0177	0.00500	"	0.0333	ND	53.1	15-130	3.18	50	
2-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.5	15-130	5.78	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0177*		*"*	*0.0333*		*53.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0205*		*"*	*0.0333*		*61.6*	*40-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0112 - EPA 3050B										
Blank (BHG0112-BLK1)				Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	ND	2.00	mg/L							
LCS (BHG0112-BS1)				Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	4.95	2.00	mg/L	5.00		99.0	80-120			
Duplicate (BHG0112-DUP1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	0.282	2.00	mg/L		0.337			18.0	20	
Matrix Spike (BHG0112-MS1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	6.28	2.00	mg/L	5.04	0.337	118	75-125			
Matrix Spike Dup (BHG0112-MSD1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	6.12	2.00	mg/L	5.04	0.337	115	75-125	2.64	25	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0093 - EPA 3050B										
Blank (BHG0093-BLK1)				Prepared: 07/03/24 Analyzed: 07/04/24						
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 (BHG0093-BS1)				Prepared: 07/03/24 Analyzed: 07/04/24						
Arsenic	39.0	0.200	mg/kg wet	40.0		97.5	80-120			
Barium	40.8	0.400	"	40.0		102	80-120			
Cadmium	1.91	0.200	"	2.00		95.3	80-120			
Copper	38.3	0.400	"	40.0		95.8	80-120			
Lead	19.3	0.200	"	20.0		96.3	80-120			
Nickel	38.0	0.400	"	40.0		95.1	80-120			
Silver	1.96	0.0200	"	2.00		98.2	80-120			
Zinc	37.9	0.400	"	40.0		94.8	80-120			
Selenium	4.15	0.260	"	4.00		104	80-120			
Duplicate (BHG0093-DUP1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/04/24						
Arsenic	4.24	0.200	mg/kg dry		4.47			5.32	20	
Barium	90.4	0.400	"		61.6			37.8	20	QR-04
Cadmium	0.286	0.200	"		0.292			2.00	20	
Copper	9.22	0.400	"		9.25			0.306	20	
Lead	9.85	0.200	"		9.00			9.00	20	
Nickel	10.2	0.400	"		10.5			2.75	20	
Silver	0.0264	0.0200	"		0.0281			6.22	20	
Zinc	42.0	0.400	"		42.0			0.0461	20	
Selenium	ND	0.260	"		ND				20	

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0093 - EPA 3050B										
Matrix Spike (BHG0093-MS1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/04/24						
Arsenic	53.1	0.200	mg/kg dry	46.3	4.47	105	75-125			
Barium	119	0.400	"	46.3	61.6	123	75-125			
Cadmium	2.85	0.200	"	2.31	0.292	111	75-125			
Copper	57.9	0.400	"	46.3	9.25	105	75-125			
Lead	33.1	0.200	"	23.1	9.00	104	75-125			
Nickel	59.8	0.400	"	46.3	10.5	107	75-125			
Silver	2.52	0.0200	"	2.31	0.0281	108	75-125			
Zinc	93.1	0.400	"	46.3	42.0	110	75-125			
Selenium	4.98	0.260	"	4.63	ND	108	75-125			
Matrix Spike Dup (BHG0093-MSD1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/04/24						
Arsenic	50.4	0.200	mg/kg dry	46.3	4.47	99.1	75-125	5.31	25	
Barium	105	0.400	"	46.3	61.6	94.6	75-125	11.9	25	
Cadmium	2.72	0.200	"	2.31	0.292	105	75-125	4.63	25	
Copper	54.6	0.400	"	46.3	9.25	98.0	75-125	5.89	25	
Lead	32.2	0.200	"	23.1	9.00	100	75-125	2.88	25	
Nickel	56.1	0.400	"	46.3	10.5	98.5	75-125	6.38	25	
Silver	2.33	0.0200	"	2.31	0.0281	99.4	75-125	7.94	25	
Zinc	89.5	0.400	"	46.3	42.0	103	75-125	3.96	25	
Selenium	4.60	0.260	"	4.63	ND	99.4	75-125	7.91	25	
Post Spike (BHG0093-PS1)	**Source: 2407031-01**			Prepared: 07/03/24 Analyzed: 07/04/24						
Arsenic	123		ug/l	100	9.65	114	75-125			
Barium	248		"	100	133	115	75-125			
Cadmium	6.25		"	5.00	0.631	112	75-125			
Copper	130		"	100	20.0	110	75-125			
Lead	74.8		"	50.0	19.4	111	75-125			
Nickel	135		"	100	22.6	112	75-125			
Silver	5.42		"	5.00	0.0607	107	75-125			
Zinc	213		"	100	90.8	123	75-125			
Selenium	12.4		"	10.0	0.225	122	75-125			

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

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0875 - EPA 3050B										
Blank (BHG0875-BLK1)				Prepared: 07/30/24 Analyzed: 08/02/24						
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 (BHG0875-BS1)				Prepared: 07/30/24 Analyzed: 08/02/24						
Arsenic	36.7	0.200	mg/kg wet	37.3		98.3	80-120			
Barium	35.3	0.400	"	37.3		94.5	80-120			
Cadmium	1.79	0.200	"	1.87		95.8	80-120			
Copper	37.2	0.400	"	37.3		99.7	80-120			
Lead	17.2	0.200	"	18.7		92.4	80-120			
Nickel	37.7	0.400	"	37.3		101	80-120			
Silver	1.79	0.0200	"	1.87		95.9	80-120			
Zinc	37.2	0.400	"	37.3		99.7	80-120			
Selenium	3.76	0.260	"	3.73		101	80-120			
Duplicate (BHG0875-DUP1)				**Source: 2407031-01RE1** Prepared: 07/30/24 Analyzed: 08/02/24						
Arsenic	3.41	0.200	mg/kg dry		3.57			4.67	20	
Barium	54.6	0.400	"		84.0			42.4	20	QR-02
Cadmium	0.183	0.200	"		0.191			4.33	20	
Copper	4.11	0.400	"		4.07			0.938	20	
Lead	8.10	0.200	"		8.23			1.60	20	
Nickel	4.82	0.400	"		4.80			0.461	20	
Silver	0.0126	0.0200	"		0.0119			5.63	20	
Zinc	19.2	0.400	"		19.1			0.526	20	
Selenium	ND	0.260	"		ND				20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0875 - EPA 3050B										
Matrix Spike (BHG0875-MS1)	**Source: 2407031-01RE1**			Prepared: 07/30/24 Analyzed: 08/02/24						
Arsenic	43.1	0.200	mg/kg dry	42.5	3.57	92.8	75-125			
Barium	88.7	0.400	"	42.5	84.0	11.2	75-125			QM-07
Cadmium	1.95	0.200	"	2.13	0.191	82.7	75-125			
Copper	24.3	0.400	"	42.5	4.07	47.6	75-125			QM-05
Lead	27.6	0.200	"	21.3	8.23	91.0	75-125			
Nickel	25.3	0.400	"	42.5	4.80	48.2	75-125			QM-05
Silver	1.73	0.0200	"	2.13	0.0119	80.6	75-125			
Zinc	39.1	0.400	"	42.5	19.1	47.2	75-125			QM-05
Selenium	4.23	0.260	"	4.25	ND	99.5	75-125			
Matrix Spike Dup (BHG0875-MSD1)	**Source: 2407031-01RE1**			Prepared: 07/30/24 Analyzed: 08/02/24						
Arsenic	41.9	0.180	mg/kg dry	41.6	3.57	92.0	75-125	2.76	25	
Barium	85.3	0.360	"	41.6	84.0	3.10	75-125	3.97	25	QM-07
Cadmium	1.89	0.180	"	2.08	0.191	81.4	75-125	3.41	25	
Copper	24.1	0.360	"	41.6	4.07	48.2	75-125	0.873	25	QM-05
Lead	26.4	0.180	"	20.8	8.23	87.1	75-125	4.57	25	
Nickel	25.1	0.360	"	41.6	4.80	48.7	75-125	0.881	25	QM-05
Silver	1.71	0.0180	"	2.08	0.0119	81.4	75-125	1.15	25	
Zinc	38.7	0.360	"	41.6	19.1	47.1	75-125	1.24	25	QM-05
Selenium	4.06	0.234	"	4.16	ND	97.4	75-125	4.29	25	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0107 - 3060A_Mod										
Blank (BHG0107-BLK1)				Prepared & Analyzed: 07/03/24						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHG0107-BS1)				Prepared & Analyzed: 07/03/24						
Chromium, Hexavalent	25.9	0.30	mg/kg wet	25.0		104	80-120			
Duplicate (BHG0107-DUP1)		**Source: 2407020-01**		Prepared & Analyzed: 07/03/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHG0107-MS1)		**Source: 2407020-01**		Prepared & Analyzed: 07/03/24						
Chromium, Hexavalent	26.9	0.30	mg/kg dry	25.7	ND	105	75-125			
Matrix Spike Dup (BHG0107-MSD1)		**Source: 2407020-01**		Prepared & Analyzed: 07/03/24						
Chromium, Hexavalent	26.0	0.30	mg/kg dry	25.7	ND	101	75-125	3.50	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0089 - General Preparation										
Blank (BHG0089-BLK1)				Prepared: 07/02/24 Analyzed: 07/03/24						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BHG0089-BS1)				Prepared: 07/02/24 Analyzed: 07/03/24						
Calcium	5.48	0.0500	mg/L wet	5.00		110	70-130			
Magnesium	5.38	0.0500	"	5.00		108	70-130			
Sodium	5.50	0.0500	"	5.00		110	70-130			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0146 - General Preparation										
Duplicate (BHG0146-DUP1)	**Source: 2407024-31**			Prepared & Analyzed: 07/08/24						
% Solids	97.7		%		97.4			0.267	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0091 - General Preparation										
Blank (BHG0091-BLK1)				Prepared: 07/02/24 Analyzed: 07/08/24						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BHG0091-BS1)				Prepared: 07/02/24 Analyzed: 07/08/24						
Specific Conductance (EC)	0.154	0.0100	mmhos/cm	0.150		103	95-105			
Duplicate (BHG0091-DUP1)	**Source: 2407020-01**			Prepared: 07/02/24 Analyzed: 07/08/24						
Specific Conductance (EC)	0.243	0.0100	mmhos/cm		0.247			1.84	20	

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

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 BHG0090 - General Preparation										
LCS (BHG0090-BS1)				Prepared: 07/02/24 Analyzed: 07/08/24						
pH	9.16		pH Units	9.18		99.8	95-105			
Duplicate (BHG0090-DUP1)		**Source: 2407020-01**		Prepared: 07/02/24 Analyzed: 07/08/24						
pH	8.82		pH Units		8.85			0.340	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Farr T4N-R64W-S18 L01 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 08/02/24 13:44

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference