Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

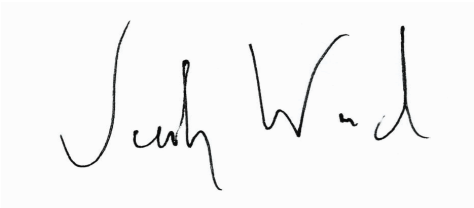
August 24, 2023

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Jepsen 63N65W
Work Order #2308204

Enclosed are the results of analyses for samples received by Summit Scientific on 08/09/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacob Wood For Paul Shrewsbury
President

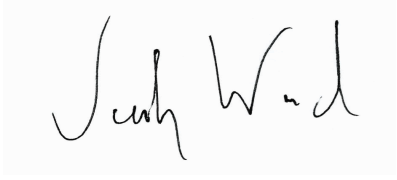
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01 DL 3'	2308204-01	Soil	08/09/23 11:41	08/09/23 16:30
SEP02 DL 3'	2308204-02	Soil	08/09/23 11:34	08/09/23 16:30

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
2308204	

	Send Data To:	Send Invoice To:
Client: Fremont Enviormental	Project Manager: Paul Henehan	Company: Noble
Address:	E-Mail: Fremont Distribution List	Project Name/Location: JEPSEN 03N65W
City/State/Zip:		AFE#:
Phone: 303-261-6246	Project Name: JEPSEN 03N65W	PO/Billing Codes: UWRWE-A3172-ABN
Sampler Name: Stanley Gilbert	Project Number:	Contact: Mike Montoya

					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, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate		HOLD	
1	SEP01 DL 3'	8/9/23	11:41	2			X			X			X	X	X	X	X				
2	SEP02 DL 3'	8/9/23	11:34	2			X			X			X	X	X	X	X				
3																					
4																					
5																					
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Relinquished by:	Date/Time:	Received by:	Date/Time:
[signature]	8/9/23 16:30	[signature]	8923 1630
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

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

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

Notes:

Temperature Upon Receipt: 10.1 | Corrected Temperature: 0 | IR gun #: 1 | HNO3 lot #:

S2

Sample Receipt Checklist

S2 Work Order# 2308204

Client: Fremont Client Project ID: Jepsen CSN USW

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

[ ] [–] [ ] [ ] [ ]

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

Temp (°C) [4.1] Thermometer # [1]

	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.	–			on ice
If custody seals are present, are they intact? (1)	–			
Are samples due within 48 hours present?		–		
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		–		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	–			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	–			
Were all samples received intact? (1)	✓			
Was adequate sample volume provided? (1)	✓			
Does the COC agree with the number and type of sample bottles received? (1)	✓			
Do the sample IDs on the bottle labels match the COC? (1)		✓		no time stamps on jars
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
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.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

AS
Custodian Printed Name

8/9/23
Date/Time

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP01 DL 3'

2308204-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGH0405	08/10/23	08/11/23	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: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0464	*116 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0356	*89.0 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0359	*89.7 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGH0408	08/10/23	08/11/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.40	*75.2 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP01 DL 3'

2308204-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0465	08/11/23	08/12/23	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: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0144	*43.3 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0157	*47.2 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.502**	0.0100	mg/L	1	BGH0533	08/14/23	08/15/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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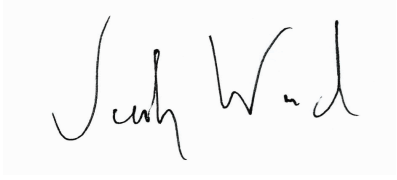

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP01 DL 3'

2308204-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.703**	0.200	mg/kg dry	1	BGH0460	08/11/23	08/12/23	EPA 6020B	
Barium	**42.3**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**1.93**	0.400	"	"	"	"	"	"	
Lead	**5.25**	0.200	"	"	"	"	"	"	
Nickel	**1.18**	0.400	"	"	"	"	"	"	
Silver	**0.0214**	0.0200	"	"	"	"	"	"	
Zinc	**6.44**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0462	08/11/23	08/11/23	EPA 7196A	

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

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**33.3**	0.0582	mg/L dry	1	BGH0553	08/14/23	08/16/23	EPA 6020B	
Magnesium	**9.14**	0.0582	"	"	"	"	"	"	
Sodium	**23.0**	0.0582	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.911**	0.00100	units	1	BGH0715	08/17/23	08/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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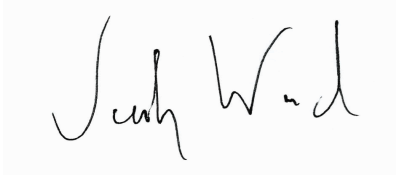

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP01 DL 3'

2308204-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**86.0**		%	1	BGH0525	08/14/23	08/14/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

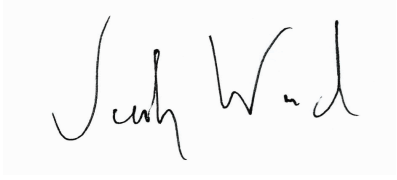
Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.400**	0.0100	mmhos/cm	1	BGH0651	08/16/23	08/16/23	EPA 120.1	

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

Date Sampled: **08/09/23 11:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.64**		pH Units	1	BGH0650	08/16/23	08/16/23	EPA 9045D	



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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP02 DL 3'

2308204-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGH0405	08/10/23	08/11/23	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	**1.4**	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0460	*115 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0357	*89.3 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0477	*119 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

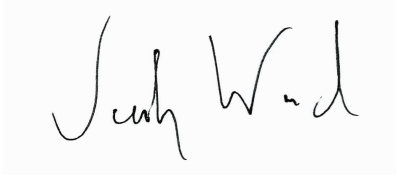
Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGH0408	08/10/23	08/11/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.65	*77.2 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM



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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP02 DL 3'

2308204-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0465	08/11/23	08/12/23	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: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0176	*52.9 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0147	*44.1 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/09/23 11:34**

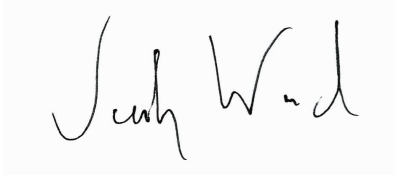
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.505**	0.0100	mg/L	1	BGH0533	08/14/23	08/15/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific



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SEP02 DL 3'

2308204-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.631**	0.200	mg/kg dry	1	BGH0460	08/11/23	08/12/23	EPA 6020B	
Barium	**39.4**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**1.65**	0.400	"	"	"	"	"	"	
Lead	**4.58**	0.200	"	"	"	"	"	"	
Nickel	**1.00**	0.400	"	"	"	"	"	"	
Silver	**0.0225**	0.0200	"	"	"	"	"	"	
Zinc	**5.52**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0462	08/11/23	08/11/23	EPA 7196A	

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

Date Sampled: **08/09/23 11:34**

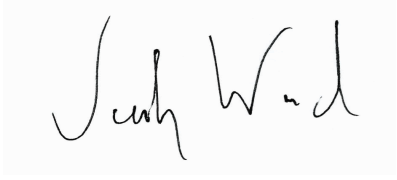
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**69.3**	0.0585	mg/L dry	1	BGH0553	08/14/23	08/16/23	EPA 6020B	
Magnesium	**18.5**	0.0585	"	"	"	"	"	"	
Sodium	**20.8**	0.0585	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.573**	0.00100	units	1	BGH0715	08/17/23	08/17/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods



S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

SEP02 DL 3'

2308204-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**85.5**		%	1	BGH0525	08/14/23	08/14/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.816**	0.0100	mmhos/cm	1	BGH0651	08/16/23	08/16/23	EPA 120.1	

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

Date Sampled: **08/09/23 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**6.22**		pH Units	1	BGH0650	08/16/23	08/16/23	EPA 9045D	

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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.

S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0405 - EPA 5030 Soil MS										
Blank (BGH0405-BLK1)				Prepared & Analyzed: 08/10/23						
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	*0.0478*		*"*	*0.0400*		*119*	*50-150*			
Surrogate: Toluene-d8	*0.0400*		*"*	*0.0400*		*100*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0437*		*"*	*0.0400*		*109*	*50-150*			
LCS (BGH0405-BS1)				Prepared & Analyzed: 08/10/23						
Benzene	0.121	0.0020	mg/kg	0.100		121	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.118	0.0050	"	0.100		118	70-130			
m,p-Xylene	0.238	0.010	"	0.200		119	70-130			
o-Xylene	0.101	0.0050	"	0.100		101	70-130			
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100		110	70-130			
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
Naphthalene	0.0881	0.0038	"	0.100		88.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0428*		*"*	*0.0400*		*107*	*50-150*			
Surrogate: Toluene-d8	*0.0398*		*"*	*0.0400*		*99.6*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0377*		*"*	*0.0400*		*94.2*	*50-150*			
Matrix Spike (BGH0405-MS1)		**Source: 2308181-01**		Prepared & Analyzed: 08/10/23						
Benzene	0.132	0.0020	mg/kg	0.100	ND	132	70-130			QM-07
Toluene	0.121	0.0050	"	0.100	ND	121	70-130			
Ethylbenzene	0.124	0.0050	"	0.100	ND	124	70-130			
m,p-Xylene	0.248	0.010	"	0.200	ND	124	70-130			
o-Xylene	0.106	0.0050	"	0.100	ND	106	70-130			
1,2,4-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130			
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130			
Naphthalene	0.0962	0.0038	"	0.100	ND	96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0464*		*"*	*0.0400*		*116*	*50-150*			
Surrogate: Toluene-d8	*0.0407*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0386*		*"*	*0.0400*		*96.6*	*50-150*			

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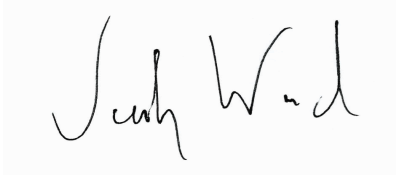

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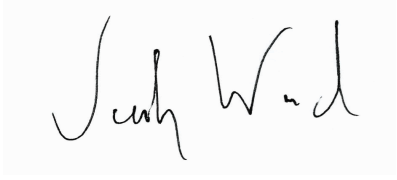
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0405 - EPA 5030 Soil MS										
Matrix Spike Dup (BGH0405-MSD1)	**Source: 2308181-01**			Prepared & Analyzed: 08/10/23						
Benzene	0.123	0.0020	mg/kg	0.100	ND	123	70-130	6.52	30	
Toluene	0.114	0.0050	"	0.100	ND	114	70-130	5.94	30	
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130	5.71	30	
m,p-Xylene	0.236	0.010	"	0.200	ND	118	70-130	5.15	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	4.42	30	
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	5.63	30	
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	4.83	30	
Naphthalene	0.0959	0.0038	"	0.100	ND	95.9	70-130	0.250	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0446*		"	*0.0400*		*111*	*50-150*			
Surrogate: Toluene-d8	*0.0408*		"	*0.0400*		*102*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0372*		"	*0.0400*		*93.0*	*50-150*			



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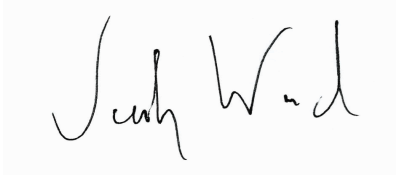
Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0408 - EPA 3550A										
Blank (BGH0408-BLK1)				Prepared: 08/10/23 Analyzed: 08/11/23						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*11.0*		*"*	*12.5*		*88.0*	*30-150*			
LCS (BGH0408-BS1)				Prepared: 08/10/23 Analyzed: 08/11/23						
C10-C28 (DRO)	398	50	mg/kg	500		79.6	70-130			
Surrogate: o-Terphenyl	*10.6*		*"*	*12.5*		*84.6*	*30-150*			
Matrix Spike (BGH0408-MS1)	**Source: 2308181-01**			Prepared: 08/10/23 Analyzed: 08/11/23						
C10-C28 (DRO)	402	50	mg/kg	500	6.28	79.2	70-130			
Surrogate: o-Terphenyl	*10.6*		*"*	*12.5*		*84.7*	*30-150*			
Matrix Spike Dup (BGH0408-MSD1)	**Source: 2308181-01**			Prepared: 08/10/23 Analyzed: 08/11/23						
C10-C28 (DRO)	413	50	mg/kg	500	6.28	81.4	70-130	2.75	20	
Surrogate: o-Terphenyl	*10.4*		*"*	*12.5*		*82.9*	*30-150*			



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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0465 - EPA 5030 Soil MS										
Blank (BGH0465-BLK1)				Prepared: 08/11/23 Analyzed: 08/12/23						
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	*0.0199*		*"*	*0.0333*		*59.7*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0209*		*"*	*0.0333*		*62.6*	*40-150*			
LCS (BGH0465-BS1)				Prepared: 08/11/23 Analyzed: 08/12/23						
Acenaphthene	0.0213	0.00500	mg/kg	0.0333		63.9	31-137			
Anthracene	0.0216	0.00500	"	0.0333		64.8	30-120			
Benzo (a) anthracene	0.0183	0.00500	"	0.0333		54.8	30-120			
Benzo (a) pyrene	0.0208	0.00500	"	0.0333		62.5	30-120			
Benzo (b) fluoranthene	0.0206	0.00500	"	0.0333		61.7	30-120			
Benzo (k) fluoranthene	0.0201	0.00500	"	0.0333		60.4	30-120			
Chrysene	0.0228	0.00500	"	0.0333		68.3	30-120			
Dibenz (a,h) anthracene	0.0218	0.00500	"	0.0333		65.4	30-120			
Fluoranthene	0.0212	0.00500	"	0.0333		63.7	30-120			
Fluorene	0.0214	0.00500	"	0.0333		64.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333		65.3	30-120			
Pyrene	0.0248	0.00500	"	0.0333		74.5	35-142			
1-Methylnaphthalene	0.0183	0.00500	"	0.0333		54.9	35-142			
2-Methylnaphthalene	0.0221	0.00500	"	0.0333		66.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0228*		*"*	*0.0333*		*68.5*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0234*		*"*	*0.0333*		*70.2*	*40-150*			

Summit Scientific

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0465 - EPA 5030 Soil MS										
Matrix Spike (BGH0465-MS1)	**Source: 2308180-01**			Prepared: 08/11/23 Analyzed: 08/12/23						
Acenaphthene	0.0150	0.00500	mg/kg	0.0333	ND	45.1	31-137			
Anthracene	0.0156	0.00500	"	0.0333	ND	46.9	30-120			
Benzo (a) anthracene	0.0153	0.00500	"	0.0333	ND	45.9	30-120			
Benzo (a) pyrene	0.0156	0.00500	"	0.0333	ND	46.9	30-120			
Benzo (b) fluoranthene	0.0159	0.00500	"	0.0333	ND	47.6	30-120			
Benzo (k) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.4	30-120			
Chrysene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.7	30-120			
Fluoranthene	0.0159	0.00500	"	0.0333	ND	47.8	30-120			
Fluorene	0.0162	0.00500	"	0.0333	ND	48.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0162	0.00500	"	0.0333	ND	48.7	30-120			
Pyrene	0.0176	0.00500	"	0.0333	ND	52.8	35-142			
1-Methylnaphthalene	0.0149	0.00500	"	0.0333	ND	44.8	15-130			
2-Methylnaphthalene	0.0163	0.00500	"	0.0333	ND	48.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0179*		*"*	*0.0333*		*53.8*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0178*		*"*	*0.0333*		*53.3*	*40-150*			
Matrix Spike Dup (BGH0465-MSD1)	**Source: 2308180-01**			Prepared: 08/11/23 Analyzed: 08/12/23						
Acenaphthene	0.0133	0.00500	mg/kg	0.0333	ND	40.0	31-137	11.9	30	
Anthracene	0.0145	0.00500	"	0.0333	ND	43.4	30-120	7.60	30	
Benzo (a) anthracene	0.0148	0.00500	"	0.0333	ND	44.3	30-120	3.51	30	
Benzo (a) pyrene	0.0145	0.00500	"	0.0333	ND	43.5	30-120	7.57	30	
Benzo (b) fluoranthene	0.0148	0.00500	"	0.0333	ND	44.4	30-120	6.97	30	
Benzo (k) fluoranthene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	1.86	30	
Chrysene	0.0151	0.00500	"	0.0333	ND	45.4	30-120	9.70	30	
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	14.8	30	
Fluoranthene	0.0142	0.00500	"	0.0333	ND	42.5	30-120	11.8	30	
Fluorene	0.0152	0.00500	"	0.0333	ND	45.5	30-120	6.52	30	
Indeno (1,2,3-cd) pyrene	0.0144	0.00500	"	0.0333	ND	43.3	30-120	11.7	30	
Pyrene	0.0142	0.00500	"	0.0333	ND	42.7	35-142	21.2	30	
1-Methylnaphthalene	0.0160	0.00500	"	0.0333	ND	47.9	15-130	6.80	50	
2-Methylnaphthalene	0.0152	0.00500	"	0.0333	ND	45.7	15-130	6.61	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0137*		*"*	*0.0333*		*41.1*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0149*		*"*	*0.0333*		*44.8*	*40-150*			

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0533 - EPA 3050B										
Blank (BGH0533-BLK1)				Prepared: 08/14/23 Analyzed: 08/15/23						
Boron	ND	0.0100	mg/L							
LCS (BGH0533-BS1)				Prepared: 08/14/23 Analyzed: 08/15/23						
Boron	5.22	0.0100	mg/L	5.00		104	80-120			
Duplicate (BGH0533-DUP1)		**Source: 2308180-01**		Prepared: 08/14/23 Analyzed: 08/15/23						
Boron	0.273	0.0100	mg/L		0.319			15.3	20	
Matrix Spike (BGH0533-MS1)		**Source: 2308180-01**		Prepared: 08/14/23 Analyzed: 08/15/23						
Boron	5.22	0.0100	mg/L	5.00	0.319	98.1	75-125			
Matrix Spike Dup (BGH0533-MSD1)		**Source: 2308180-01**		Prepared: 08/14/23 Analyzed: 08/15/23						
Boron	5.38	0.0100	mg/L	5.00	0.319	101	75-125	3.03	25	

Summit Scientific

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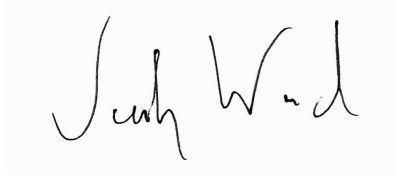
Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0460 - EPA 3050B										
Blank (BGH0460-BLK1)				Prepared: 08/11/23 Analyzed: 08/12/23						
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 (BGH0460-BS1)				Prepared: 08/11/23 Analyzed: 08/12/23						
Arsenic	34.5	0.200	mg/kg wet	40.0		86.3	80-120			
Barium	37.6	0.400	"	40.0		94.0	80-120			
Cadmium	1.86	0.200	"	2.00		93.1	80-120			
Copper	32.9	0.400	"	40.0		82.2	80-120			
Lead	18.4	0.200	"	20.0		92.2	80-120			
Nickel	32.1	0.400	"	40.0		80.1	80-120			
Silver	1.77	0.0200	"	2.00		88.4	80-120			
Zinc	34.9	0.400	"	40.0		87.1	80-120			
Duplicate (BGH0460-DUP1)		**Source: 2306321-01RE1**		Prepared: 08/11/23 Analyzed: 08/12/23						
Arsenic	0.800	0.200	mg/kg wet		0.629			24.0	20	QR-01
Barium	30.0	0.400	"		25.0			17.9	20	
Cadmium	0.390	0.200	"		0.288			30.2	20	QR-01
Copper	4.07	0.400	"		3.79			7.12	20	
Lead	17.2	0.200	"		14.9			14.2	20	
Nickel	3.06	0.400	"		2.35			26.3	20	QR-01
Silver	0.0408	0.0200	"		0.0360			12.5	20	
Zinc	17.8	0.400	"		14.1			23.6	20	QR-04
Selenium	ND	0.260	"		ND				200	



S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0460 - EPA 3050B										
Matrix Spike (BGH0460-MS1)	**Source: 2306321-01RE1**			Prepared: 08/11/23 Analyzed: 08/12/23						
Arsenic	8.33	0.200	mg/kg wet	40.0	0.629	19.3	75-125			QM-01
Barium	72.9	0.400	"	40.0	25.0	120	75-125			
Cadmium	2.27	0.200	"	2.00	0.288	98.9	75-125			
Copper	11.5	0.400	"	40.0	3.79	19.2	75-125			QM-01
Lead	33.3	0.200	"	20.0	14.9	92.2	75-125			
Nickel	10.2	0.400	"	40.0	2.35	19.7	75-125			QM-01
Silver	1.91	0.0200	"	2.00	0.0360	93.7	75-125			
Zinc	23.8	0.400	"	40.0	14.1	24.2	75-125			QM-01
Matrix Spike Dup (BGH0460-MSD1)	**Source: 2306321-01RE1**			Prepared: 08/11/23 Analyzed: 08/12/23						
Arsenic	8.45	0.200	mg/kg wet	40.0	0.629	19.6	75-125	1.41	25	QM-01
Barium	77.8	0.400	"	40.0	25.0	132	75-125	6.46	25	QM-01
Cadmium	2.45	0.200	"	2.00	0.288	108	75-125	7.77	25	
Copper	11.5	0.400	"	40.0	3.79	19.3	75-125	0.362	25	QM-01
Lead	34.7	0.200	"	20.0	14.9	99.0	75-125	4.01	25	
Nickel	10.2	0.400	"	40.0	2.35	19.7	75-125	0.0117	25	QM-01
Silver	2.03	0.0200	"	2.00	0.0360	99.6	75-125	6.03	25	
Zinc	23.9	0.400	"	40.0	14.1	24.5	75-125	0.435	25	QM-01

Summit Scientific

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0462 - 3060A_Mod										
Blank (BGH0462-BLK1)				Prepared & Analyzed: 08/11/23						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGH0462-BS1)				Prepared & Analyzed: 08/11/23						
Chromium, Hexavalent	25.8	0.30	mg/kg wet	25.0		103	80-120			
Duplicate (BGH0462-DUP1)	**Source: 2308038-08**			Prepared & Analyzed: 08/11/23						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGH0462-MS1)	**Source: 2308038-08**			Prepared & Analyzed: 08/11/23						
Chromium, Hexavalent	31.6	0.30	mg/kg dry	31.2	ND	101	75-125			
Matrix Spike Dup (BGH0462-MSD1)	**Source: 2308038-08**			Prepared & Analyzed: 08/11/23						
Chromium, Hexavalent	32.6	0.30	mg/kg dry	31.2	ND	104	75-125	2.92	20	

Summit Scientific

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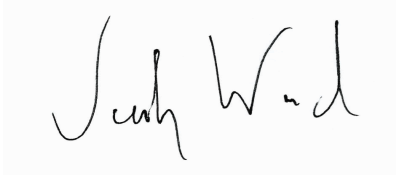
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0553 - General Preparation										
Blank (BGH0553-BLK1)				Prepared: 08/14/23 Analyzed: 08/16/23						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BGH0553-BS1)				Prepared: 08/14/23 Analyzed: 08/16/23						
Calcium	5.73	0.0500	mg/L wet	5.00		115	70-130			
Magnesium	6.29	0.0500	"	5.00		126	70-130			
Sodium	6.29	0.0500	"	5.00		126	70-130			



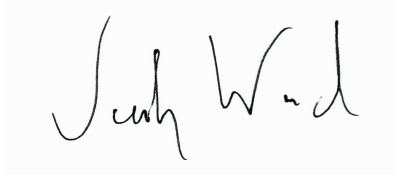
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0525 - General Preparation										
Duplicate (BGH0525-DUP1)		**Source: 2308039-07**		Prepared & Analyzed: 08/14/23						
% Solids	87.9		%		91.2			3.62	20	



S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0651 - General Preparation										
Blank (BGH0651-BLK1)				Prepared & Analyzed: 08/16/23						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BGH0651-BS1)				Prepared & Analyzed: 08/16/23						
Specific Conductance (EC)	0.153	0.0100	mmhos/cm	0.150		102	95-105			
Duplicate (BGH0651-DUP1)		**Source: 2308203-01**		Prepared & Analyzed: 08/16/23						
Specific Conductance (EC)	0.258	0.0100	mmhos/cm		0.258			0.0775	20	

Summit Scientific

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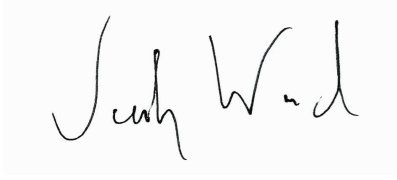
S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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 BGH0650 - General Preparation										
LCS (BGH0650-BS1)				Prepared & Analyzed: 08/16/23						
pH	8.95		pH Units	9.18		97.5	95-105			
Duplicate (BGH0650-DUP1)		**Source: 2308203-01**		Prepared & Analyzed: 08/16/23						
pH	7.65		pH Units		7.65			0.00	20	



Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Jepsen 63N65W Project Number: UWRWE-A3172-ABN Project Manager: Paul Henehan	**Reported:** 08/24/23 10:34

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-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
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