

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 06, 2025

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Lower Latham PC G01-32D (Flowline)

Work Order #2501177

Enclosed are the results of analyses for samples received by Summit Scientific on 01/14/25 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amanda Stilwell', written in a cursive style.

Amanda Stilwell For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)

Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 3Ft(2)	2501177-01	Soil	01/14/25 08:40	01/14/25 16:30

Summit Scientific

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2501177

Client: Fremont Environmental		Project Manager:		Send Data To:		Send Invoice To:		
Address: 8305 6th St.		E-Mail: Chevron Dist. List, paulH, ethanB(@fremontenv.com)		Company: Chevron		Project Name/Location:		
City/State/Zip: Wellington, CO		Project Name: Noble - LOWER LATHAM PC G01-32D (Flowline)		AFE#:		PO/Billing Codes: UWRWE-A2461-ENV		
Phone:		Project Number: C024-061		Contact: Dan Peterson				
Sampler Name: Ethan Black								
ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative	Matrix	Analysis Requested	Special Instructions
1	FL01 3 Ft (2)	1/14/25	0840	2	HCl	Soil	Full Table 915-1 (Soil)	
2					HNO3		Full Table 915-1 (GW)	
3					None		NBTEX, TMBs	
4					Other		TPH (C6-C36)	
5					Water		PAHs	
6					Soil		SAR, EC, pH, Boron	
7							Table 915-1 Metals	
8							TDS, Chloride, Sulfate	
9								
10								
11								
12								
13								
14								
15								
Relinquished by: <i>Ethan Black</i>		Date/Time: 1/14/25 1217		Received by: <i>S2 North</i>		Date/Time: 1/14/25 1217		Notes: Dist. Report to parties displayed in the email line(s) only.
Relinquished by: <i>S2</i>		Date/Time: 1/14/25 1630		Received by: <i>[Signature]</i>		Date/Time: 1/14/25 1630		
Relinquished by:		Date/Time:		Received by:		Date/Time:		
Temperature Upon Receipt: 6.0		Corrected Temperature: 0		IR gun #: 1		HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2501177Client: Fremont Client Project ID: Lower Latham Pt. G01-32D (Flowline)Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air ☐ Soil ☒ Solid ☐ Water ☐ Other ☐Temp (°C) 6.0 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on site
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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , 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? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample IDs
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)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ 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):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

1/14/25
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

FL01 3Ft(2)
2501177-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BIA0933	01/20/25	01/26/25	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: **01/14/25 08:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0400	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0402	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BIA0934	01/20/25	01/22/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.2	97.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0850	01/20/25	01/25/25	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: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0258	77.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0230	69.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1185	02/20/25	03/05/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Total Metals by EPA 6020B

Arsenic	6.08	0.200	mg/kg dry	1	BIA1515	01/31/25	02/12/25	EPA 6020B
Barium	158	0.400	"	"	"	"	"	"
Cadmium	0.372	0.200	"	"	"	"	"	"
Copper	7.62	0.400	"	"	"	"	"	"
Lead	11.9	0.200	"	"	"	"	"	"
Nickel	9.19	0.400	"	"	"	"	"	"
Silver	0.0565	0.0200	"	"	"	"	"	"
Zinc	29.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0044	02/03/25	02/05/25	EPA 7196A	

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

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	35.7	0.0500	mg/L dry	1	BIB0152	02/05/25	02/07/25	EPA 6020B	
Magnesium	13.3	0.0500	"	"	"	"	"	"	
Sodium	18.1	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.657	0.00100	units	1	BIB0380	02/07/25	02/07/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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2501177-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.2	%	1	BIA1444	01/30/25	01/31/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.196	0.0100	mmhos/cm	1	BIB0147	02/05/25	02/06/25	EPA 120.1	

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

Date Sampled: **01/14/25 08:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.50		pH Units	1	BIB0140	02/05/25	02/06/25	EPA 9045D	

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03/06/25 15:40

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BIA0933 - EPA 5030 Soil MS

Blank (BIA0933-BLK1)

Prepared: 01/20/25 Analyzed: 01/26/25

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	0.0439		"	0.0400		110	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		103	50-150			

LCS (BIA0933-BS1)

Prepared: 01/20/25 Analyzed: 01/26/25

Benzene	0.0981	0.0020	mg/kg	0.100		98.1	70-130			
Toluene	0.0962	0.0050	"	0.100		96.2	70-130			
Ethylbenzene	0.0981	0.0050	"	0.100		98.1	70-130			
m,p-Xylene	0.195	0.010	"	0.200		97.7	70-130			
o-Xylene	0.0968	0.0050	"	0.100		96.8	70-130			
1,2,4-Trimethylbenzene	0.0976	0.0050	"	0.100		97.6	70-130			
1,3,5-Trimethylbenzene	0.0982	0.0050	"	0.100		98.2	70-130			
Naphthalene	0.108	0.0038	"	0.100		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0440		"	0.0400		110	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	50-150			

Matrix Spike (BIA0933-MS1)

Source: 2501152-01

Prepared: 01/20/25 Analyzed: 01/26/25

Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130			
Toluene	0.105	0.0050	"	0.100	ND	105	70-130			
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
m,p-Xylene	0.205	0.010	"	0.200	ND	103	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130			
Naphthalene	0.108	0.0038	"	0.100	ND	108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0438		"	0.0400		109	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	50-150			

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Project Manager: Paul Henchan

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03/06/25 15:40

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BIA0933 - EPA 5030 Soil MS

Matrix Spike Dup (BIA0933-MSD1)		Source: 2501152-01			Prepared: 01/20/25 Analyzed: 01/26/25					
Benzene	0.109	0.0020	mg/kg	0.100	ND	109	70-130	3.26	30	
Toluene	0.107	0.0050	"	0.100	ND	107	70-130	1.82	30	
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	5.76	30	
m,p-Xylene	0.217	0.010	"	0.200	ND	109	70-130	5.65	30	
o-Xylene	0.106	0.0050	"	0.100	ND	106	70-130	4.35	30	
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130	1.37	30	
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	2.84	30	
Naphthalene	0.0994	0.0038	"	0.100	ND	99.4	70-130	8.41	30	
Surrogate: 1,2-Dichloroethane-d4		0.0396	"	0.0400		99.1	50-150			
Surrogate: Toluene-d8		0.0397	"	0.0400		99.2	50-150			
Surrogate: 4-Bromofluorobenzene		0.0404	"	0.0400		101	50-150			

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03/06/25 15:40

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIA0934 - EPA 3550A

Blank (BIA0934-BLK1)

Prepared: 01/20/25 Analyzed: 01/22/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	19.9		"	25.0		79.7	30-150			

LCS (BIA0934-BS1)

Prepared: 01/20/25 Analyzed: 01/22/25

C10-C28 (DRO)	555	50	mg/kg	500		111	70-130			
Surrogate: o-Terphenyl	23.6		"	25.0		94.2	30-150			

Matrix Spike (BIA0934-MS1)

Source: 2501152-01

Prepared: 01/20/25 Analyzed: 01/22/25

C10-C28 (DRO)	549	50	mg/kg	500	ND	110	70-130			
Surrogate: o-Terphenyl	18.7		"	12.5		150	30-150			

Matrix Spike Dup (BIA0934-MSD1)

Source: 2501152-01

Prepared: 01/20/25 Analyzed: 01/22/25

C10-C28 (DRO)	487	50	mg/kg	500	ND	97.3	70-130	12.0	20	
Surrogate: o-Terphenyl	18.4		"	12.5		148	30-150			

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Reported:
03/06/25 15:40

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BIA0850 - EPA 5030 Soil MS

Blank (BIA0850-BLK1)

Prepared: 01/20/25 Analyzed: 01/25/25

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	0.0276		"	0.0333		82.8	40-140			
Surrogate: Fluoranthene-d10	0.0259		"	0.0333		77.7	40-140			

LCS (BIA0850-BS1)

Prepared: 01/20/25 Analyzed: 01/25/25

Acenaphthene	0.0268	0.00500	mg/kg	0.0333		80.4	40-140			
Anthracene	0.0280	0.00500	"	0.0333		83.9	40-140			
Benzo (a) anthracene	0.0285	0.00500	"	0.0333		85.5	40-140			
Benzo (a) pyrene	0.0267	0.00500	"	0.0333		80.2	40-140			
Benzo (b) fluoranthene	0.0278	0.00500	"	0.0333		83.5	40-140			
Benzo (k) fluoranthene	0.0287	0.00500	"	0.0333		86.0	40-140			
Chrysene	0.0281	0.00500	"	0.0333		84.3	40-140			
Dibenz (a,h) anthracene	0.0184	0.00500	"	0.0333		55.1	40-140			
Fluoranthene	0.0285	0.00500	"	0.0333		85.4	40-140			
Fluorene	0.0249	0.00500	"	0.0333		74.6	40-140			
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333		57.2	40-140			
Pyrene	0.0305	0.00500	"	0.0333		91.6	40-140			
1-Methylnaphthalene	0.0290	0.00500	"	0.0333		87.0	40-140			
2-Methylnaphthalene	0.0294	0.00500	"	0.0333		88.2	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0298		"	0.0333		89.3	40-140			
Surrogate: Fluoranthene-d10	0.0299		"	0.0333		89.7	40-140			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BIA0850 - EPA 5030 Soil MS

Matrix Spike (BIA0850-MS1)			Source: 2501115-01		Prepared: 01/20/25 Analyzed: 01/25/25						
Acenaphthene	0.0255	0.00500	mg/kg	0.0333	ND	76.5	40-140				
Anthracene	0.0254	0.00500	"	0.0333	ND	76.2	40-140				
Benzo (a) anthracene	0.0254	0.00500	"	0.0333	ND	76.1	40-140				
Benzo (a) pyrene	0.0237	0.00500	"	0.0333	ND	71.2	40-140				
Benzo (b) fluoranthene	0.0232	0.00500	"	0.0333	ND	69.6	40-140				
Benzo (k) fluoranthene	0.0241	0.00500	"	0.0333	ND	72.2	40-140				
Chrysene	0.0258	0.00500	"	0.0333	ND	77.3	40-140				
Dibenz (a,h) anthracene	0.0211	0.00500	"	0.0333	ND	63.4	40-140				
Fluoranthene	0.0268	0.00500	"	0.0333	ND	80.4	40-140				
Fluorene	0.0241	0.00500	"	0.0333	ND	72.2	40-140				
Indeno (1,2,3-cd) pyrene	0.0220	0.00500	"	0.0333	ND	66.0	40-140				
Pyrene	0.0269	0.00500	"	0.0333	ND	80.8	40-140				
1-Methylnaphthalene	0.0261	0.00500	"	0.0333	ND	78.3	40-140				
2-Methylnaphthalene	0.0253	0.00500	"	0.0333	ND	76.0	40-140				
Surrogate: 2-Methylnaphthalene-d10	0.0270		"	0.0333		81.1	40-140				
Surrogate: Fluoranthene-d10	0.0271		"	0.0333		81.4	40-140				

Matrix Spike Dup (BIA0850-MSD1)			Source: 2501115-01		Prepared: 01/20/25 Analyzed: 01/25/25						
Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.1	40-140	13.0	30		
Anthracene	0.0221	0.00500	"	0.0333	ND	66.3	40-140	14.0	30		
Benzo (a) anthracene	0.0230	0.00500	"	0.0333	ND	68.9	40-140	9.92	30		
Benzo (a) pyrene	0.0212	0.00500	"	0.0333	ND	63.5	40-140	11.4	30		
Benzo (b) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	40-140	16.5	30		
Benzo (k) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.8	40-140	18.7	30		
Chrysene	0.0222	0.00500	"	0.0333	ND	66.5	40-140	15.1	30		
Dibenz (a,h) anthracene	0.0215	0.00500	"	0.0333	ND	64.6	40-140	1.91	30		
Fluoranthene	0.0231	0.00500	"	0.0333	ND	69.2	40-140	15.0	30		
Fluorene	0.0209	0.00500	"	0.0333	ND	62.8	40-140	13.9	30		
Indeno (1,2,3-cd) pyrene	0.0206	0.00500	"	0.0333	ND	61.9	40-140	6.29	30		
Pyrene	0.0237	0.00500	"	0.0333	ND	71.2	40-140	12.7	30		
1-Methylnaphthalene	0.0230	0.00500	"	0.0333	ND	68.9	40-140	12.8	30		
2-Methylnaphthalene	0.0217	0.00500	"	0.0333	ND	65.0	40-140	15.5	30		
Surrogate: 2-Methylnaphthalene-d10	0.0246		"	0.0333		73.7	40-140				
Surrogate: Fluoranthene-d10	0.0230		"	0.0333		69.0	40-140				

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

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

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

Batch BIB1185 - EPA 3050B

Blank (BIB1185-BLK1)

Prepared: 02/20/25 Analyzed: 03/05/25

Boron ND 2.00 mg/L

LCS (BIB1185-BS1)

Prepared: 02/20/25 Analyzed: 03/05/25

Boron 4.62 2.00 mg/L 5.00 92.4 80-120

Duplicate (BIB1185-DUP1)

Source: 2501164-17

Prepared: 02/20/25 Analyzed: 03/05/25

Boron ND 2.00 mg/L ND 20

Matrix Spike (BIB1185-MS1)

Source: 2501164-17

Prepared: 02/20/25 Analyzed: 03/05/25

Boron 4.55 2.00 mg/L 5.01 ND 90.9 75-125

Matrix Spike Dup (BIB1185-MSD1)

Source: 2501164-17

Prepared: 02/20/25 Analyzed: 03/05/25

Boron 4.78 2.00 mg/L 5.01 ND 95.4 75-125 4.87 25

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIA1515 - EPA 3050B

Blank (BIA1515-BLK1)

Prepared: 01/31/25 Analyzed: 02/12/25

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 (BIA1515-BS1)

Prepared: 01/31/25 Analyzed: 02/14/25

Arsenic	40.8	0.200	mg/kg wet	39.1	105	80-120
Barium	36.9	0.400	"	39.1	94.4	80-120
Cadmium	1.90	0.200	"	1.95	97.5	80-120
Copper	42.7	0.400	"	39.1	109	80-120
Lead	18.9	0.200	"	19.5	96.7	80-120
Nickel	41.9	0.400	"	39.1	107	80-120
Silver	1.89	0.0200	"	1.95	96.5	80-120
Zinc	41.5	0.400	"	39.1	106	80-120
Selenium	3.65	0.260	"	3.91	93.4	80-120

Duplicate (BIA1515-DUP1)

Source: 2501177-01

Prepared: 01/31/25 Analyzed: 02/12/25

Arsenic	5.74	0.200	mg/kg dry	6.08	5.71	20
Barium	162	0.400	"	158	2.58	20
Cadmium	0.357	0.200	"	0.372	4.11	20
Copper	7.67	0.400	"	7.62	0.728	20
Lead	11.7	0.200	"	11.9	1.02	20
Nickel	9.32	0.400	"	9.19	1.42	20
Silver	0.0537	0.0200	"	0.0565	4.98	20
Zinc	29.8	0.400	"	29.6	0.542	20
Selenium	0.178	0.260	"	ND	200	20

QR-01

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIA1515 - EPA 3050B

Matrix Spike (BIA1515-MS1)		Source: 2501177-01			Prepared: 01/31/25 Analyzed: 02/14/25					
Arsenic	28.4	0.200	mg/kg dry	44.8	6.08	49.7	75-125			QM-05
Barium	124	0.400	"	44.8	158	NR	75-125			QM-05
Cadmium	2.46	0.200	"	2.24	0.372	93.2	75-125			
Copper	32.3	0.400	"	44.8	7.62	55.1	75-125			QM-05
Lead	30.9	0.200	"	22.4	11.9	84.8	75-125			
Nickel	32.9	0.400	"	44.8	9.19	52.9	75-125			QM-05
Silver	2.25	0.0200	"	2.24	0.0565	98.0	75-125			
Zinc	51.3	0.400	"	44.8	29.6	48.4	75-125			QM-05
Selenium	4.25	0.260	"	4.48	ND	94.7	75-125			

Matrix Spike Dup (BIA1515-MSD1)		Source: 2501177-01			Prepared: 01/31/25 Analyzed: 02/14/25					
Arsenic	29.9	0.200	mg/kg dry	44.5	6.08	53.5	75-125	5.15	25	QM-05
Barium	119	0.400	"	44.5	158	NR	75-125	4.14	25	QM-05
Cadmium	2.58	0.200	"	2.22	0.372	99.5	75-125	4.90	25	
Copper	33.8	0.400	"	44.5	7.62	59.0	75-125	4.65	25	QM-05
Lead	31.8	0.200	"	22.2	11.9	89.6	75-125	2.95	25	
Nickel	34.2	0.400	"	44.5	9.19	56.3	75-125	3.93	25	QM-05
Silver	2.34	0.0200	"	2.22	0.0565	103	75-125	3.70	25	
Zinc	53.0	0.400	"	44.5	29.6	52.7	75-125	3.38	25	QM-05
Selenium	4.36	0.260	"	4.45	ND	98.0	75-125	2.57	25	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIB0044 - 3060A Mod

Blank (BIB0044-BLK1)

Prepared: 02/03/25 Analyzed: 02/05/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIB0044-BS1)

Prepared: 02/03/25 Analyzed: 02/05/25

Chromium, Hexavalent 24.0 0.30 mg/kg wet 26.0 92.0 80-120

Duplicate (BIB0044-DUP1)

Source: 2501177-01

Prepared: 02/03/25 Analyzed: 02/05/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIB0044-MS1)

Source: 2501177-01

Prepared: 02/03/25 Analyzed: 02/05/25

Chromium, Hexavalent 28.6 0.30 mg/kg dry 29.2 ND 98.0 75-125

Matrix Spike Dup (BIB0044-MSD1)

Source: 2501177-01

Prepared: 02/03/25 Analyzed: 02/05/25

Chromium, Hexavalent 28.6 0.30 mg/kg dry 29.2 ND 98.0 75-125 0.00 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

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

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

Batch BIB0152 - General Preparation

Blank (BIB0152-BLK1)

Prepared: 02/05/25 Analyzed: 02/07/25

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

LCS (BIB0152-BS1)

Prepared: 02/05/25 Analyzed: 02/07/25

Calcium	5.50	0.0500	mg/L wet	5.00	110	70-130
Magnesium	4.75	0.0500	"	5.00	95.0	70-130
Sodium	4.89	0.0500	"	5.00	97.8	70-130

Summit Scientific

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Lower Latham PC G01-32D (Flowline) Project Number: UWRWE-A2461-ENV Project Manager: Paul Henchan	Reported: 03/06/25 15:40
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Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BIA1444 - General Preparation

Duplicate (BIA1444-DUP1)	Source: 2501162-31			Prepared: 01/30/25 Analyzed: 01/31/25							
% Solids	93.7		%		93.1			0.619		20	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)
Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

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

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

Batch BIB0147 - General Preparation

Blank (BIB0147-BLK1)

Prepared: 02/05/25 Analyzed: 02/06/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIB0147-BS1)

Prepared: 02/05/25 Analyzed: 02/06/25

Specific Conductance (EC) 1.40 0.0100 mmhos/cm 1.41 99.3 95-105

Duplicate (BIB0147-DUP1)

Source: 2501164-01

Prepared: 02/05/25 Analyzed: 02/06/25

Specific Conductance (EC) 0.0821 0.0100 mmhos/cm 0.0812 1.02 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)

Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

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

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

Batch BIB0140 - General Preparation

LCS (BIB0140-BS1)

Prepared: 02/05/25 Analyzed: 02/06/25

pH	9.24	pH Units	9.18	101	95-105
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Duplicate (BIB0140-DUP1)

Source: 2501164-01

Prepared: 02/05/25 Analyzed: 02/06/25

pH	8.51	pH Units	8.54	0.343	20
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lower Latham PC G01-32D (Flowline)

Project Number: UWRWE-A2461-ENV
Project Manager: Paul Henchan

Reported:
03/06/25 15:40

Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference