

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 07, 2024

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549

RE: Chevron - Howard USX A09-19 Flowline  
Work Order #2403101

Enclosed are the results of analyses for samples received by Summit Scientific on 03/06/24 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 "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury  
President



Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL02@2'	2403101-01	Soil	03/05/24 00:00	03/06/24 16:30
FL03@3'	2403101-02	Soil	03/05/24 00:00	03/06/24 16:30
FL04@4'	2403101-03	Soil	03/05/24 00:00	03/06/24 16:30
BKG01@0.5'	2403101-04	Soil	03/05/24 00:00	03/06/24 16:30
BKG01@2'	2403101-05	Soil	03/05/24 00:00	03/06/24 16:30
BKG01@5'	2403101-06	Soil	03/05/24 00:00	03/06/24 16:30
BKG02@0.5'	2403101-07	Soil	03/05/24 00:00	03/06/24 16:30
BKG02@2'	2403101-08	Soil	03/05/24 00:00	03/06/24 16:30
BKG02@5'	2403101-09	Soil	03/05/24 00:00	03/06/24 16:30
FL01@2'	2403101-10	Soil	03/05/24 00:00	03/06/24 16:30
FL05@2'	2403101-11	Soil	03/05/24 00:00	03/06/24 16:30
FL06@2'	2403101-12	Soil	03/05/24 00:00	03/06/24 16:30

**Case Narrative**

Aaron Otilar has taken samples 11 & 12 off hold for full table 915 on 11/6/24.  
 This report includes those results.

This is a revision of the report originally sent on 4/9/24 at 09:00 MT.

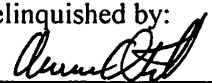
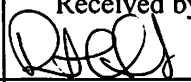
# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2403101	

	<b>Send Data To:</b>	<b>Send Invoice To:</b>
Client: Fremont Environmental	Project Manager: Paul Henehan	Company: CHEVRON
Address: 8305 6th Street	E-Mail: Fremont Distribution List	Project Name/Location:
City/State/Zip: Wellington, CO, 80549		AFE#: UWRWG-A3557-ARN
Phone: 603-477-6907	Project Name: Howard USX A09-19 Flowline	PO/Billing Codes:
Sampler Name: Aaron Otilar	Project Number: C024-052	Contact: Mike Montoya

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil			BTEXN - 915	TPH (C6-C36)	PAH	TMB's - 915	Metals (915-1)	SAR, EC, pH, Boron	TDS, Cl, SO4	
1	FLO2E 2'	3/5/24		2			X			X		X	X	X	X	X	X			
2	FLO3E 3'			2								X	X	X	X	X	X			
3	FLO4E 4'			2								X	X	X	X	X	X			
4	BK601E 0.5'			1											X	X				
5	BK601E 2'			1																
6	BK601E 5'			1																
7	BK602E 0.5'			1																
8	BK602E 2'			1																
9	BK602E 5'			1																
10	FLO1E 2'			2								X	X	X	X	X	X			
11																				
12																				
13																				
14																				
15																				

Relinquished by: 	Date/Time: 3/5/24 1655	Received by: Summit North Office	Date/Time: 3/5/24 1655	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: S2	Date/Time: 3/6/24 1630	Received by: 	Date/Time: 3/6/24 1630	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 9.9	Corrected Temperature: e	IR gun #:		HNO3 lot #:		

# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
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<b>Send Data To:</b>		<b>Send Invoice To:</b>	
Client: Fremont Environmental	Project Manager: Paul Henehan	Company: <u>Noble/Cheson</u>	
Address: 8305 6th Street	E-Mail:	Project Name/Location:	
City/State/Zip: Wellington, CO 80549	Project Name: <u>Howard USX A09-19 Flowline</u>	AFE#: <u>UWRWE - A3557-ABN</u>	
Phone: 603-477-6907	Project Number: <u>C024-052</u>	PO/Billing Codes:	
Sampler Name: Aaron Otilar		Contact: <u>Milke Montoya</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested		Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Table 915-1 Organics	
1	FLO1 @ 2'	3/15/24		2			X					X	X	
2	FLO2 @ 2'													
3	FLO3 @ 2'													
4	FLO4 @ 2'													
5	FLO5 @ 2'													
6	FLO6 @ 2'			1										
7	BK601 @ 0.5'			1										
8	BK601 @ 2'			1										
9	BK601 @ 5'			1										
10	BK602 @ 0.5'			1										
11	BK602 @ 2'			1										
12	BK602 @ 5'			1										
13														
14														
15														

Relinquished by: <u>Aaron Otilar</u>	Date/Time: <u>3/15/24 1655</u>	Received by: <u>Summit North Office</u>	Date/Time: <u>3/15/24 1655</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: _____	Corrected Temperature _____	IR gun #: _____	HNO3 lot #: _____			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2403101

Client: Fremont Client Project ID: Howard USX A09-19 Flowline

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

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

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOICE
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample times
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2 extra samples
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	"
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): jars for this and 2403102 did not have "Tank Bottery" or "Flowline" on them - difficult to determine for which project				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS  
Custodian Printed Name

3/6/24  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL02@2'**  
**2403101-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHC0193	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0361	90.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0309	77.3 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.2	113 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL02@2'**  
**2403101-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC0177	03/07/24	03/09/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0263	78.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0295	88.6 %	40-150		"	"	"	"	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 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: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL02@2'**  
**2403101-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.61	0.200	mg/kg dry	1	BHC0597	03/18/24	03/26/24	EPA 6020B	
Barium	109	0.400	"	"	"	"	"	"	
Cadmium	0.258	0.200	"	"	"	"	"	"	
Copper	4.35	0.400	"	"	"	"	"	"	
Lead	7.98	0.200	"	"	"	"	"	"	
Nickel	4.22	0.400	"	"	"	"	"	"	
Silver	0.0311	0.0200	"	"	"	"	"	"	
Zinc	23.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	101	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	8.80	0.0500	"	"	"	"	"	"	
Sodium	22.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.564	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL02@2'**  
**2403101-01 (Soil)**

**Summit Scientific**

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

% Solids	91.3	%	1	BHC0428	03/15/24	03/16/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.173	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.58		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL03@3'**  
**2403101-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHC0193	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0352	87.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0384	95.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0312	78.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.2	89.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL03@3'**  
**2403101-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC0177	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0228	68.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0281	84.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL03@3'**  
**2403101-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.34	0.200	mg/kg dry	1	BHC0597	03/18/24	03/26/24	EPA 6020B	
Barium	88.4	0.400	"	"	"	"	"	"	
Cadmium	0.347	0.200	"	"	"	"	"	"	
Copper	9.73	0.400	"	"	"	"	"	"	
Lead	12.7	0.200	"	"	"	"	"	"	
Nickel	8.08	0.400	"	"	"	"	"	"	
Silver	0.0758	0.0200	"	"	"	"	"	"	
Zinc	28.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.6	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	6.93	0.0500	"	"	"	"	"	"	
Sodium	20.6	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.02	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 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: Chevron - Howard USX A09-19 Flowline  
 Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL03@3'**  
**2403101-02 (Soil)**

**Summit Scientific**

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

% Solids	86.6	%	1	BHC0428	03/15/24	03/16/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.210	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.52		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL04@4'**  
**2403101-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHC0193	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0350	87.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0383	95.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0310	77.5 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.03	64.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL04@4'**  
**2403101-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC0177	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0148	44.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0186	55.9 %	40-150		"	"	"	"	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL04@4'**  
**2403101-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.02	0.200	mg/kg dry	1	BHC0597	03/18/24	03/26/24	EPA 6020B	
Barium	85.9	0.400	"	"	"	"	"	"	
Cadmium	0.372	0.200	"	"	"	"	"	"	
Copper	23.7	0.400	"	"	"	"	"	"	
Lead	11.1	0.200	"	"	"	"	"	"	
Nickel	6.11	0.400	"	"	"	"	"	"	
Silver	0.0363	0.0200	"	"	"	"	"	"	
Zinc	36.8	0.400	"	"	"	"	"	"	
Selenium	0.291	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	49.3	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	19.2	0.0500	"	"	"	"	"	"	
Sodium	14.2	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.435	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 PO Box 1289  
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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL04@4'**  
**2403101-03 (Soil)**

**Summit Scientific**

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

% Solids	85.9	%	1	BHC0428	03/15/24	03/16/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.356	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.00		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG01@0.5'**  
**2403101-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	4.52	0.200		mg/kg dry	1	BHC0597	03/18/24	03/26/24	EPA 6020B	
Barium	89.7	0.400		"	"	"	"	"	"	
Cadmium	0.395	0.200		"	"	"	"	"	"	
Copper	18.5	0.400		"	"	"	"	"	"	
Lead	12.7	0.200		"	"	"	"	"	"	
Nickel	6.26	0.400		"	"	"	"	"	"	
Silver	0.0487	0.0200		"	"	"	"	"	"	
Zinc	31.5	0.400		"	"	"	"	"	"	
Selenium	0.296	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	38.2	0.0500		mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	11.5	0.0500		"	"	"	"	"	"	
Sodium	17.1	0.0500		"	"	"	"	"	"	

**Calculated Analysis**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG01@0.5'**  
**2403101-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.623	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.6		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.343	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG01@2'**  
**2403101-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	7.09	0.200	mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	136	0.400	"	"	"	"	"	"	
Cadmium	0.472	0.200	"	"	"	"	"	"	
Copper	10.3	0.400	"	"	"	"	"	"	
Lead	15.7	0.200	"	"	"	"	"	"	
Nickel	8.81	0.400	"	"	"	"	"	"	
Silver	0.0879	0.0200	"	"	"	"	"	"	
Zinc	31.6	0.400	"	"	"	"	"	"	
Selenium	0.262	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	22.8	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	9.46	0.0500	"	"	"	"	"	"	
Sodium	36.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

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Project: Chevron - Howard USX A09-19 Flowline  
 Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**BKG01@2'**  
**2403101-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.64	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.8		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.268	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.66		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG01@5'**  
**2403101-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.51	0.200		mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	84.7	0.400		"	"	"	"	"	"	
Cadmium	0.331	0.200		"	"	"	"	"	"	
Copper	5.25	0.400		"	"	"	"	"	"	
Lead	7.38	0.200		"	"	"	"	"	"	
Nickel	5.90	0.400		"	"	"	"	"	"	
Silver	0.0368	0.0200		"	"	"	"	"	"	
Zinc	20.8	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	31.9	0.0500		mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	17.6	0.0500		"	"	"	"	"	"	
Sodium	43.3	0.0500		"	"	"	"	"	"	

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Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG01@5'**  
**2403101-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.53	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.475	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.71		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@0.5'**  
**2403101-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.99	0.200		mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	84.6	0.400		"	"	"	"	"	"	
Cadmium	0.348	0.200		"	"	"	"	"	"	
Copper	26.7	0.400		"	"	"	"	"	"	
Lead	11.4	0.200		"	"	"	"	"	"	
Nickel	6.04	0.400		"	"	"	"	"	"	
Silver	0.0417	0.0200		"	"	"	"	"	"	
Zinc	31.3	0.400		"	"	"	"	"	"	
Selenium	0.294	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	37.9	0.0500		mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	11.5	0.0500		"	"	"	"	"	"	
Sodium	16.8	0.0500		"	"	"	"	"	"	

**Calculated Analysis**

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Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@0.5'**  
**2403101-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.614</b>	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.2</b>		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.326</b>	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.06</b>		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@2'**  
**2403101-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	6.72	0.200	mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	136	0.400	"	"	"	"	"	"	
Cadmium	0.454	0.200	"	"	"	"	"	"	
Copper	9.41	0.400	"	"	"	"	"	"	
Lead	15.9	0.200	"	"	"	"	"	"	
Nickel	8.00	0.400	"	"	"	"	"	"	
Silver	0.0799	0.0200	"	"	"	"	"	"	
Zinc	32.0	0.400	"	"	"	"	"	"	
Selenium	0.260	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.6	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	7.59	0.0500	"	"	"	"	"	"	
Sodium	30.9	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@2'**  
**2403101-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.48	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.1		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.234	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.77		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@5'**  
**2403101-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	<b>3.08</b>	0.200		mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	<b>135</b>	0.400		"	"	"	"	"	"	
Cadmium	<b>0.581</b>	0.200		"	"	"	"	"	"	
Copper	<b>6.53</b>	0.400		"	"	"	"	"	"	
Lead	<b>10.5</b>	0.200		"	"	"	"	"	"	
Nickel	<b>6.66</b>	0.400		"	"	"	"	"	"	
Silver	<b>0.0531</b>	0.0200		"	"	"	"	"	"	
Zinc	<b>23.7</b>	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>46.8</b>	0.0500		mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	<b>26.4</b>	0.0500		"	"	"	"	"	"	
Sodium	<b>58.5</b>	0.0500		"	"	"	"	"	"	

Summit Scientific

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Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**BKG02@5'**  
**2403101-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.69	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.1		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.615	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.66		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

Summit Scientific

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL01@2'**  
**2403101-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHC0193	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0342	85.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0322	80.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.9	86.9 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL01@2'**  
**2403101-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC0177	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0245	73.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0278	83.3 %	40-150		"	"	"	"	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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PO Box 1289  
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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL01@2'**  
**2403101-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.57	0.200	mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B
Barium	150	0.400	"	"	"	"	"	"
Cadmium	0.361	0.200	"	"	"	"	"	"
Copper	6.01	0.400	"	"	"	"	"	"
Lead	9.45	0.200	"	"	"	"	"	"
Nickel	7.50	0.400	"	"	"	"	"	"
Silver	0.0538	0.0200	"	"	"	"	"	"
Zinc	22.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	64.7	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Magnesium	8.41	0.0500	"	"	"	"	"	"	
Sodium	7.15	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 03/05/24 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.222	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: 03/05/24 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: Chevron - Howard USX A09-19 Flowline  
 Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL01@2'**  
**2403101-10 (Soil)**

**Summit Scientific**

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

% Solids	88.5	%	1	BHC0428	03/15/24	03/16/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.179	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.58		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

Summit Scientific

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL05@2'**  
**2403101-11 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: <i>o</i> -Terphenyl	11.0	88.0 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Acenaphthene	ND	0.00500		mg/kg	1	BHC0177	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0185	55.4 %		40-150		"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL05@2'**  
**2403101-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Surrogate: Fluoranthene-d10      0.0241      72.4 %      40-150      BHC0177      03/07/24      03/10/24      EPA 8270D SIM

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.83	0.200	mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	96.1	0.400	"	"	"	"	"	"	
Cadmium	0.338	0.200	"	"	"	"	"	"	
Copper	6.98	0.400	"	"	"	"	"	"	
Lead	9.91	0.200	"	"	"	"	"	"	
Nickel	6.53	0.400	"	"	"	"	"	"	
Silver	0.0449	0.0200	"	"	"	"	"	"	
Zinc	27.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	91.8	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	

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 Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**FL05@2'**  
**2403101-11 (Soil)**

**Summit Scientific**

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	7.59	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Sodium	5.15	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.139	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.6		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.135	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.76		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL06@2'**  
**2403101-12 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC0196	03/07/24	03/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: <i>o</i> -Terphenyl	10.5	84.3 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Acenaphthene	ND	0.00500		mg/kg	1	BHC0177	03/07/24	03/10/24	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: **03/05/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 2-Methylnaphthalene-d10	0.0152	45.6 %		40-150		"	"	"	"	

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Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL06@2'**  
**2403101-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Surrogate: Fluoranthene-d10      0.0197      59.1 %      40-150      BHC0177      03/07/24      03/10/24      EPA 8270D SIM

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHC0506	03/15/24	04/03/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.08	0.200	mg/kg dry	1	BHC0597	03/18/24	03/27/24	EPA 6020B	
Barium	128	0.400	"	"	"	"	"	"	
Cadmium	0.415	0.200	"	"	"	"	"	"	
Copper	8.65	0.400	"	"	"	"	"	"	
Lead	12.2	0.200	"	"	"	"	"	"	
Nickel	7.43	0.400	"	"	"	"	"	"	
Silver	0.0682	0.0200	"	"	"	"	"	"	
Zinc	30.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0605	03/18/24	03/20/24	EPA 7196A	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	178	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	

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Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**FL06@2'**  
**2403101-12 (Soil)**

**Summit Scientific**

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	9.20	0.0500	mg/L dry	1	BHC0782	03/20/24	04/06/24	EPA 6020B	
Sodium	3.70	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0733	0.00100	units	1	BHD0204	04/06/24	04/06/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.2		%	1	BHC0428	03/15/24	03/16/24	Calculation	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.128	0.0100	mmhos/cm	1	BHC0784	03/20/24	03/24/24	EPA 120.1	

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

Date Sampled: **03/05/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.74		pH Units	1	BHC0783	03/20/24	03/24/24	EPA 9045D	

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Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BHC0193 - EPA 5030 Soil MS

##### Blank (BHC0193-BLK1)

Prepared: 03/07/24 Analyzed: 03/08/24

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	0.0420		"	0.0400		105	50-150				
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	50-150				

##### LCS (BHC0193-BS1)

Prepared: 03/07/24 Analyzed: 03/08/24

Benzene	0.111	0.0020	mg/kg	0.100		111	70-130				
Toluene	0.110	0.0050	"	0.100		110	70-130				
Ethylbenzene	0.119	0.0050	"	0.100		119	70-130				
m,p-Xylene	0.238	0.010	"	0.200		119	70-130				
o-Xylene	0.117	0.0050	"	0.100		117	70-130				
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130				
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100		102	70-130				
Naphthalene	0.0982	0.0038	"	0.100		98.2	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0452		"	0.0400		113	50-150				
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0438		"	0.0400		110	50-150				

##### Matrix Spike (BHC0193-MS1)

Source: 2403099-01

Prepared: 03/07/24 Analyzed: 03/08/24

Benzene	0.0856	0.0020	mg/kg	0.100	ND	85.6	70-130				
Toluene	0.0856	0.0050	"	0.100	ND	85.6	70-130				
Ethylbenzene	0.0921	0.0050	"	0.100	ND	92.1	70-130				
m,p-Xylene	0.183	0.010	"	0.200	ND	91.4	70-130				
o-Xylene	0.0928	0.0050	"	0.100	ND	92.8	70-130				
1,2,4-Trimethylbenzene	0.0791	0.0050	"	0.100	ND	79.1	70-130				
1,3,5-Trimethylbenzene	0.0782	0.0050	"	0.100	ND	78.2	70-130				
Naphthalene	0.0943	0.0038	"	0.100	ND	94.3	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0401		"	0.0400		100	50-150				
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	50-150				
Surrogate: 4-Bromofluorobenzene	0.0457		"	0.0400		114	50-150				

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Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BHC0193 - EPA 5030 Soil MS**

Matrix Spike Dup (BHC0193-MSD1)	Source: 2403099-01			Prepared: 03/07/24 Analyzed: 03/08/24						
Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130	21.1	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	19.1	30	
Ethylbenzene	0.0966	0.0050	"	0.100	ND	96.6	70-130	4.77	30	
m,p-Xylene	0.191	0.010	"	0.200	ND	95.6	70-130	4.51	30	
o-Xylene	0.0966	0.0050	"	0.100	ND	96.6	70-130	4.02	30	
1,2,4-Trimethylbenzene	0.0814	0.0050	"	0.100	ND	81.4	70-130	2.92	30	
1,3,5-Trimethylbenzene	0.0807	0.0050	"	0.100	ND	80.7	70-130	3.25	30	
Naphthalene	0.0783	0.0038	"	0.100	ND	78.3	70-130	18.6	30	
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		104	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	50-150			

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Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BHC0196 - EPA 3550A**

**Blank (BHC0196-BLK1)**

Prepared: 03/07/24 Analyzed: 03/09/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.8		"	12.5		119	30-150				

**LCS (BHC0196-BS1)**

Prepared: 03/07/24 Analyzed: 03/09/24

C10-C28 (DRO)	551	50	mg/kg	500		110	70-130				
Surrogate: <i>o</i> -Terphenyl	13.2		"	12.5		105	30-150				

**Matrix Spike (BHC0196-MS1)**

Source: 2403099-01

Prepared: 03/07/24 Analyzed: 03/09/24

C10-C28 (DRO)	543	50	mg/kg	500	32.0	102	70-130				
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.5		103	30-150				

**Matrix Spike Dup (BHC0196-MSD1)**

Source: 2403099-01

Prepared: 03/07/24 Analyzed: 03/09/24

C10-C28 (DRO)	496	50	mg/kg	500	32.0	92.8	70-130	8.95	20		
Surrogate: <i>o</i> -Terphenyl	12.4		"	12.5		99.1	30-150				

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Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

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

**Batch BHC0177 - EPA 5030 Soil MS**

**Blank (BHC0177-BLK1)**

Prepared: 03/07/24 Analyzed: 03/09/24

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	0.0355		"	0.0333		107	40-150			
Surrogate: Fluoranthene-d10	0.0388		"	0.0333		116	40-150			

**LCS (BHC0177-BS1)**

Prepared: 03/07/24 Analyzed: 03/09/24

Acenaphthene	0.0371	0.00500	mg/kg	0.0333		111	31-137			
Anthracene	0.0366	0.00500	"	0.0333		110	30-120			
Benzo (a) anthracene	0.0358	0.00500	"	0.0333		107	30-120			
Benzo (a) pyrene	0.0311	0.00500	"	0.0333		93.4	30-120			
Benzo (b) fluoranthene	0.0353	0.00500	"	0.0333		106	30-120			
Benzo (k) fluoranthene	0.0372	0.00500	"	0.0333		112	30-120			
Chrysene	0.0376	0.00500	"	0.0333		113	30-120			
Dibenz (a,h) anthracene	0.0241	0.00500	"	0.0333		72.4	30-120			
Fluoranthene	0.0373	0.00500	"	0.0333		112	30-120			
Fluorene	0.0371	0.00500	"	0.0333		111	30-120			
Indeno (1,2,3-cd) pyrene	0.0212	0.00500	"	0.0333		63.6	30-120			
Pyrene	0.0410	0.00500	"	0.0333		123	35-142			
1-Methylnaphthalene	0.0357	0.00500	"	0.0333		107	35-142			
2-Methylnaphthalene	0.0398	0.00500	"	0.0333		119	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0375		"	0.0333		113	40-150			
Surrogate: Fluoranthene-d10	0.0363		"	0.0333		109	40-150			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

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

**Batch BHC0177 - EPA 5030 Soil MS**

**Matrix Spike (BHC0177-MS1)**

Source: 2403083-01

Prepared: 03/07/24 Analyzed: 03/09/24

Acenaphthene	0.0292	0.00500	mg/kg	0.0333	ND	87.7	31-137			
Anthracene	0.0303	0.00500	"	0.0333	ND	90.8	30-120			
Benzo (a) anthracene	0.0323	0.00500	"	0.0333	ND	96.9	30-120			
Benzo (a) pyrene	0.0262	0.00500	"	0.0333	ND	78.5	30-120			
Benzo (b) fluoranthene	0.0246	0.00500	"	0.0333	ND	73.7	30-120			
Benzo (k) fluoranthene	0.0243	0.00500	"	0.0333	ND	72.9	30-120			
Chrysene	0.0301	0.00500	"	0.0333	ND	90.4	30-120			
Dibenz (a,h) anthracene	0.0233	0.00500	"	0.0333	ND	70.0	30-120			
Fluoranthene	0.0316	0.00500	"	0.0333	ND	94.8	30-120			
Fluorene	0.0309	0.00500	"	0.0333	ND	92.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0174	0.00500	"	0.0333	ND	52.1	30-120			
Pyrene	0.0346	0.00500	"	0.0333	ND	104	35-142			
1-Methylnaphthalene	0.0325	0.00500	"	0.0333	ND	97.6	15-130			
2-Methylnaphthalene	0.0318	0.00500	"	0.0333	ND	95.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0313		"	0.0333		93.8	40-150			
Surrogate: Fluoranthene-d10	0.0330		"	0.0333		99.1	40-150			

**Matrix Spike Dup (BHC0177-MSD1)**

Source: 2403083-01

Prepared: 03/07/24 Analyzed: 03/09/24

Acenaphthene	0.0317	0.00500	mg/kg	0.0333	ND	95.1	31-137	8.08	30	
Anthracene	0.0328	0.00500	"	0.0333	ND	98.3	30-120	7.92	30	
Benzo (a) anthracene	0.0355	0.00500	"	0.0333	ND	106	30-120	9.36	30	
Benzo (a) pyrene	0.0286	0.00500	"	0.0333	ND	85.9	30-120	8.93	30	
Benzo (b) fluoranthene	0.0269	0.00500	"	0.0333	ND	80.7	30-120	9.06	30	
Benzo (k) fluoranthene	0.0255	0.00500	"	0.0333	ND	76.6	30-120	4.98	30	
Chrysene	0.0326	0.00500	"	0.0333	ND	97.8	30-120	7.94	30	
Dibenz (a,h) anthracene	0.0279	0.00500	"	0.0333	ND	83.8	30-120	17.9	30	
Fluoranthene	0.0342	0.00500	"	0.0333	ND	103	30-120	7.96	30	
Fluorene	0.0314	0.00500	"	0.0333	ND	94.1	30-120	1.40	30	
Indeno (1,2,3-cd) pyrene	0.0228	0.00500	"	0.0333	ND	68.5	30-120	27.2	30	
Pyrene	0.0369	0.00500	"	0.0333	ND	111	35-142	6.43	30	
1-Methylnaphthalene	0.0276	0.00500	"	0.0333	ND	82.9	15-130	16.3	50	
2-Methylnaphthalene	0.0291	0.00500	"	0.0333	ND	87.4	15-130	8.90	50	
Surrogate: 2-Methylnaphthalene-d10	0.0291		"	0.0333		87.4	40-150			
Surrogate: Fluoranthene-d10	0.0358		"	0.0333		107	40-150			

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

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

**Batch BHC0506 - EPA 3050B**

**Blank (BHC0506-BLK1)**

Prepared: 03/15/24 Analyzed: 04/03/24

Boron ND 2.00 mg/L

**LCS (BHC0506-BS1)**

Prepared: 03/15/24 Analyzed: 04/03/24

Boron 4.76 2.00 mg/L 5.00 95.2 80-120

**Duplicate (BHC0506-DUP1)**

Source: 2403101-01

Prepared: 03/15/24 Analyzed: 04/03/24

Boron 0.0796 2.00 mg/L 0.0959 18.6 20

**Matrix Spike (BHC0506-MS1)**

Source: 2403101-01

Prepared: 03/15/24 Analyzed: 04/03/24

Boron 4.97 2.00 mg/L 5.00 0.0959 97.5 75-125

**Matrix Spike Dup (BHC0506-MSD1)**

Source: 2403101-01

Prepared: 03/15/24 Analyzed: 04/03/24

Boron 5.03 2.00 mg/L 5.00 0.0959 98.7 75-125 1.24 25

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

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

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

**Batch BHC0597 - EPA 3050B**

**Blank (BHC0597-BLK1)**

Prepared: 03/18/24 Analyzed: 03/26/24

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 (BHC0597-BS1)**

Prepared: 03/18/24 Analyzed: 03/26/24

Arsenic	43.4	0.200	mg/kg wet	40.0		108	80-120			
Barium	42.4	0.400	"	40.0		106	80-120			
Cadmium	2.25	0.200	"	2.00		113	80-120			
Copper	47.7	0.400	"	40.0		119	80-120			
Lead	22.0	0.200	"	20.0		110	80-120			
Nickel	47.8	0.400	"	40.0		119	80-120			
Silver	2.15	0.0200	"	2.00		108	80-120			
Zinc	47.8	0.400	"	40.0		120	80-120			
Selenium	3.70	0.260	"	4.00		92.5	80-120			

**Duplicate (BHC0597-DUP1)**

Source: 2403101-01

Prepared: 03/18/24 Analyzed: 03/26/24

Arsenic	2.68	0.200	mg/kg dry	2.61		2.85	20			
Barium	113	0.400	"	109		3.29	20			
Cadmium	0.277	0.200	"	0.258		7.37	20			
Copper	4.43	0.400	"	4.35		1.76	20			
Lead	8.29	0.200	"	7.98		3.85	20			
Nickel	4.34	0.400	"	4.22		2.78	20			
Silver	0.0337	0.0200	"	0.0311		8.11	20			
Zinc	24.3	0.400	"	23.9		2.00	20			
Selenium	0.191	0.260	"	ND		200	20			QR-01

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

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

**Batch BHC0597 - EPA 3050B**

<b>Matrix Spike (BHC0597-MS1)</b>	<b>Source: 2403101-01</b>			<b>Prepared: 03/18/24 Analyzed: 03/26/24</b>								
Arsenic	48.5	0.200	mg/kg dry	43.8	2.61	105	75-125					
Barium	139	0.400	"	43.8	109	69.6	75-125					QM-07
Cadmium	2.70	0.200	"	2.19	0.258	111	75-125					
Copper	30.7	0.400	"	43.8	4.35	60.2	75-125					QM-07
Lead	30.9	0.200	"	21.9	7.98	105	75-125					
Nickel	31.5	0.400	"	43.8	4.22	62.2	75-125					QM-07
Silver	2.40	0.0200	"	2.19	0.0311	108	75-125					
Zinc	49.1	0.400	"	43.8	23.9	57.5	75-125					QM-07
Selenium	5.04	0.260	"	4.38	ND	115	75-125					

<b>Matrix Spike Dup (BHC0597-MSD1)</b>	<b>Source: 2403101-01</b>			<b>Prepared: 03/18/24 Analyzed: 03/26/24</b>								
Arsenic	53.3	0.200	mg/kg dry	43.8	2.61	116	75-125	9.47	25			
Barium	153	0.400	"	43.8	109	99.9	75-125	9.10	25			
Cadmium	2.98	0.200	"	2.19	0.258	124	75-125	9.82	25			
Copper	32.6	0.400	"	43.8	4.35	64.4	75-125	5.73	25			QM-07
Lead	34.5	0.200	"	21.9	7.98	121	75-125	10.9	25			
Nickel	33.3	0.400	"	43.8	4.22	66.4	75-125	5.80	25			QM-07
Silver	2.62	0.0200	"	2.19	0.0311	118	75-125	8.71	25			
Zinc	51.9	0.400	"	43.8	23.9	64.0	75-125	5.61	25			QM-07
Selenium	5.53	0.260	"	4.38	ND	126	75-125	9.30	25			QM-07

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline  
 Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

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

**Batch BHC0605 - 3060A Mod**

**Blank (BHC0605-BLK1)**

Prepared: 03/18/24 Analyzed: 03/20/24

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BHC0605-BS1)**

Prepared: 03/18/24 Analyzed: 03/20/24

Chromium, Hexavalent 24.4 0.30 mg/kg wet 25.0 97.6 80-120

**Duplicate (BHC0605-DUP1)**

**Source: 2403101-01**

Prepared: 03/18/24 Analyzed: 03/20/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BHC0605-MS1)**

**Source: 2403101-01**

Prepared: 03/18/24 Analyzed: 03/20/24

Chromium, Hexavalent 27.2 0.30 mg/kg dry 27.4 ND 99.4 75-125

**Matrix Spike Dup (BHC0605-MSD1)**

**Source: 2403101-01**

Prepared: 03/18/24 Analyzed: 03/20/24

Chromium, Hexavalent 27.2 0.30 mg/kg dry 27.4 ND 99.4 75-125 0.00 20

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

**Summit Scientific**

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

**Batch BHC0782 - General Preparation**

**Blank (BHC0782-BLK1)**

Prepared: 03/20/24 Analyzed: 04/06/24

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

**LCS (BHC0782-BS1)**

Prepared: 03/20/24 Analyzed: 04/06/24

Calcium	5.36	0.0500	mg/L wet	5.00	107	70-130				
Magnesium	5.45	0.0500	"	5.00	109	70-130				
Sodium	5.28	0.0500	"	5.00	106	70-130				

Summit Scientific

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 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

**Summit Scientific**

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

**Batch BHC0428 - General Preparation**

Duplicate (BHC0428-DUP1)	Source: 2403101-01		Prepared: 03/15/24 Analyzed: 03/16/24	
% Solids	90.7	%	91.3	0.654 20

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

**Summit Scientific**

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

**Batch BHC0784 - General Preparation**

**Blank (BHC0784-BLK1)**

Prepared: 03/20/24 Analyzed: 03/24/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHC0784-BS1)**

Prepared: 03/20/24 Analyzed: 03/24/24

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

**Duplicate (BHC0784-DUP1)**

Source: 2403064-01

Prepared: 03/20/24 Analyzed: 03/24/24

Specific Conductance (EC) 0.610 0.0100 mmhos/cm 0.614 0.719 20

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
 Project Manager: Paul Henchan

**Reported:**  
 11/07/24 07:09

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

**Summit Scientific**

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

**Batch BHC0783 - General Preparation**

**LCS (BHC0783-BS1)**

Prepared: 03/20/24 Analyzed: 03/24/24

pH	9.04	pH Units	9.18	98.5	95-105
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**Duplicate (BHC0783-DUP1)**

Source: 2403064-01

Prepared: 03/20/24 Analyzed: 03/24/24

pH	8.68	pH Units	8.84	1.83	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Chevron - Howard USX A09-19 Flowline

Project Number: UWRWE-A3557-ABN CO24-052  
Project Manager: Paul Henchan

**Reported:**  
11/07/24 07:09

### 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-07 The spike recovery was outside acceptance limits for the MS and/or MSD. 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