

# Flowline Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
Site Name & COGCC Facility Number: Pluss G25-07		Date: 8/21/2023, 8/22/2023			Remediation Project #: 28764			
Associated Wells:		Age of Site:			Number of Photos Attached: 15			
Starting point: (GPS coordinates and descriptions) 40.285031, -104.609364								
End point: (GPS coordinates and descriptions) 40.289929, -104.609138								
USCS Soil Type: SW					Estimated Depth to Groundwater: >3ft			
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None observed								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None observed								
Flowlines								
Flowline type	Oil/Gas/Water							
Depth	3 ft							
Age								
Length	2772 ft							
Construction Material	Steel							
Were flowlines pulled?	Partial							
Visual Integrity of lines	Good							
Visual impacts if trenched	None observed							
PID Readings if trenched	0.0 - 0.6							
Sample taken? Location/Sample ID#	Yes, see below							
Photo Number(s)	1-15							
Other observations regarding on location flowlines: Flowline was ABIP at soil sample locations FL01-E to FL01-F, and FL01-G to FL01-J, due to conflict with multiple pipeline corridors. Flowline was removed at soil sample locations FL01-A to FL01-D and FL01-K to FL01-O.								
Summary								
Was impacted soil identified? <b>No</b> Yes - less than 10 cubic yards                      Yes - more than 10 cubic yards								
Total number of samples field screened: 15			Total number of samples collected: 15					
Highest PID Reading: 0.6			Total number of samples submitted to lab for analysis: 8					
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:					Estimated spill volume:			
Lateral extent:					Volume of soil removed:			
Is additional investigation required?								
Was groundwater encountered during the investigation? <b>No</b> Yes - not impacted or in contact with impacted soils                      Yes - groundwater impacted and/or in contact with impacted soils								
Measured depth to groundwater:					Was remedial groundwater removal conducted? Yes                      No			
Date Groundwater was encountered:					Commencement date of removal:			
Sheen on groundwater?                      Yes                      No			Volume of groundwater removed prior to sampling:					
Free product observed?                      Yes                      No			Volume of groundwater removed post sampling:					
Total number of samples collected:					Total Volume of groundwater removed:			
Total number of samples submitted to lab for analysis:								

**Photographic Log**



<b>Equipment ID:</b> FL01-A@2'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-C@2'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing East				<b>Notes/Conditions:</b> Facing East			

**Photographic Log**



<b>Equipment ID:</b> FL01-D@3'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-E@4'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing West				<b>Notes/Conditions:</b> Facing West Flowline ABIP			

**Photographic Log**


<b>Equipment ID:</b> FL01-F@3'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-G@4'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing South Flowline ABIP				<b>Notes/Conditions:</b> Facing South Flowline ABIP			

**Photographic Log**



<b>Equipment ID:</b> FL01-H@3'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-I@3'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing West				<b>Notes/Conditions:</b> Facing Southeast Direction Change			

**Photographic Log**



<b>Equipment ID:</b> FL01-B@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-J@3'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing West				<b>Notes/Conditions:</b> Facing East Flowline ABIP			

**Photographic Log**



<b>Equipment ID:</b> FL01-K@3'		<b>Equipment Type:</b> Flowline			<b>Equipment ID:</b> FL01-L@3'		<b>Equipment Type:</b> Flowline		
<b>Material:</b> Steel		<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel		<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing North					<b>Notes/Conditions:</b> Facing North				

**Photographic Log**



<b>Equipment ID:</b> FL01-M@3'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-N@3'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b> Facing North				<b>Notes/Conditions:</b> Facing South			

**Photographic Log**



<b>Equipment ID:</b> FL01-O@3'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b> Steel		<b>Volume:</b>		<b>Contents:</b> Oil/Gas/Water		<b>Material:</b>	
<b>Material:</b>		<b>Volume:</b>		<b>Contents:</b>		<b>Material:</b>	
<b>Notes/Conditions:</b> Facing South Direction Change				<b>Notes/Conditions:</b>			

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - PLUSS G25-07**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
FL01-A@2'	08/21/23	0.2	No Staining	No Odor	Lab	40.285026	-104.609352	1.2
FL01-B@4'	08/21/23	0.4	No Staining	No Odor	Lab	40.289929	-104.609142	0.9
FL01-C@2'	08/21/23	0.6	No Staining	No Odor	Grab	40.285022	-104.608424	1.2
FL01-D@3'	08/21/23	0.3	No Staining	No Odor	Grab	40.285016	-104.607637	1.0
FL01-E@4'	08/21/23	0.0	No Staining	No Odor	Lab	40.285022	-104.607341	1.2
FL01-F@3'	08/21/23	0.1	No Staining	No Odor	Lab	40.285008	-104.607039	1.1
FL01-G@4'	08/21/23	0.0	No Staining	No Odor	Lab	40.289659	-104.607941	0.9
FL01-H@3'	08/21/23	0.0	No Staining	No Odor	Grab	40.289655	-104.608523	1.0
FL01-I@3'	08/21/23	0.2	No Staining	No Odor	Lab	40.289740	-104.608961	1.1
FL01-J@3'	08/22/23	0.0	No Staining	No Odor	Lab	40.288843	-104.606882	0.9
FL01-K@3'	08/22/23	0.0	No Staining	No Odor	Grab	40.288172	-104.606894	0.9
FL01-L@3'	08/22/23	0.4	No Staining	No Odor	Grab	40.287369	-104.606896	0.9
FL01-M@3'	08/22/23	0.3	No Staining	No Odor	Grab	40.286472	-104.606899	1.0
FL01-N@3'	08/22/23	0.1	No Staining	No Odor	Grab	40.285627	-104.606911	1.1
FL01-O@3'	08/22/23	0.2	No Staining	No Odor	Lab	40.285014	-104.606908	0.9

Notes:

PID = Photoionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

1.) Latitude and longitude coordinates will be provided in decimal degrees with an accuracy and precision of 5 decimals of a degree using the North American Datum ("NAD") of 1983

TABLE 2  
SOIL ANALYTICAL DATA  
NOBLE ENERGY, INC. - PLUSS G25-07

Soil Sample ID	Date	<sup>1</sup> Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL <sup>2</sup>		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL <sup>1,2,3</sup>		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01-A@2'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-B@4'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-E@4'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-F@3'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-G@4'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-I@3'	08/21/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-J@3'	08/22/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-O@3'	08/22/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL <sup>2</sup>		6 - 8.3	<6	<4mmhos/cm	2
FL01-A@2'	08/22/23	8.20	0.142	0.263	<0.0100
FL01-B@4'	08/21/23	7.88	0.0252	0.147	<0.0100
FL01-E@4'	08/21/23	6.39	0.379	0.119	<0.0100
FL01-F@3'	08/21/23	8.26	0.0154	0.102	<0.0100
FL01-G@4'	08/21/23	6.52	0.116	0.0682	0.0345
FL01-I@3'	08/21/23	6.91	0.0323	0.0963	<0.0100
FL01-J@3'	08/22/23	6.32	0.0573	0.0204	<0.0100
FL01-O@3'	08/22/23	8.25	0.0480	0.104	<0.0100

Soil Sample ID	Date Sampled	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Residential SSL <sup>1,2</sup>		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL <sup>1,2,3</sup>		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01-A@2'	08/21/23	1.41	52.5	<0.200	<0.30	5.18	16.0	2.65	<0.260	0.0226	22.5
FL01-B@4'	08/21/23	1.65	41.9	<0.200	<0.30	3.10	3.87	3.03	<0.260	<0.0200	12.2
FL01-E@4'	08/21/23	1.06	31.6	<0.200	<0.30	2.01	3.18	2.17	<0.260	<0.0200	8.37
FL01-F@3'	08/21/23	1.52	44.3	<0.200	<0.30	2.85	4.24	3.25	<0.260	0.0205	11.7
FL01-G@4'	08/21/23	1.44	48.3	<0.200	<0.30	2.17	4.05	2.50	<0.260	<0.0200	10.8
FL01-I@3'	08/21/23	1.34	42.7	<0.200	<0.30	3.14	4.27	2.90	<0.260	0.0200	12.4
FL01-J@3'	08/22/23	0.385	35.5	<0.200	<0.30	0.815	3.10	0.982	<0.260	0.0200	3.92
FL01-O@3'	08/22/23	0.593	57.6	<0.200	<0.30	1.21	5.50	1.44	<0.260	0.0488	5.88

Notes:

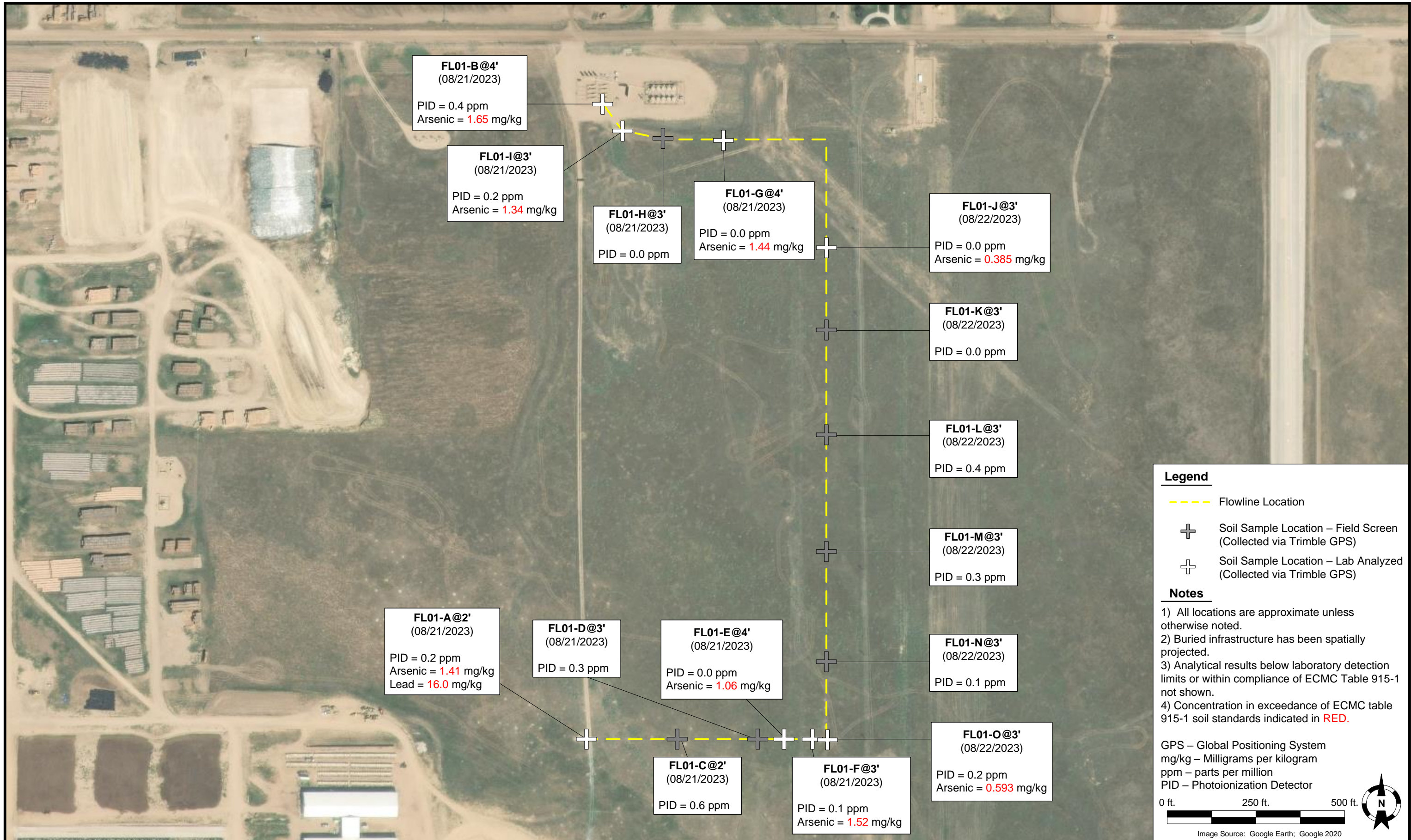
- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical
- SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

ECMC = Energy and Carbon Management Commission  
 TPH-GRO = Total petroleum hydrocarbons - gasoline range organics  
 TPH-DRO = Total petroleum hydrocarbons - diesel range organics  
 TPH-ORO = Total petroleum hydrocarbons - oil range organics  
 mg/kg = Milligrams per kilogram  
 SAR = Sodium Adsorption Ratio  
 EC = Electrical Conductivity  
 mmhos/cm = Millimhos per centimeter  
 mg/L = Milligrams per liter  
 < = Analytical result is less than the indicated laboratory reporting limit

1,2,4 - TMB = 1,2,4 Trimethylbenzene  
 1,3,5 - TMB = 1,3,5 Trimethylbenzene  
 Benz(a) = Benzo(a)anthracene  
 Benzo(b) = Benzo(b)fluoranthene  
 Benzo(k) = Benzo(k)fluoranthene  
 Benzo(a) = Benzo(a)pyrene  
 A,H = Dibenzo(a,h)anthracene  
 1,2,3-CD = Indeno(1,2,3-cd)pyrene  
 1-M = 1-methylnaphthalene  
 2-M = 2-methylnaphthalene

Highlighted results are equal to or exceed the ECMC Table 915-1 standard



**Legend**

- Flowline Location
- + Soil Sample Location – Field Screen (Collected via Trimble GPS)
- + Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)

**Notes**

- 1) All locations are approximate unless otherwise noted.
- 2) Buried infrastructure has been spatially projected.
- 3) Analytical results below laboratory detection limits or within compliance of ECMC Table 915-1 not shown.
- 4) Concentration in exceedance of ECMC table 915-1 soil standards indicated in RED.

GPS – Global Positioning System  
 mg/kg – Milligrams per kilogram  
 ppm – parts per million  
 PID – Photoionization Detector

0 ft. 250 ft. 500 ft.

Image Source: Google Earth; Google 2020

DATE: 10/24/2023

DESIGNED BY: JW

DRAWN BY: EH

**TASMAN**  
GEOSCIENCES

Tasman Geosciences, Inc.  
6855 W 119<sup>th</sup> Avenue  
Broomfield, CO 80020

**Noble Energy, Inc. – DJ Basin**  
**Pluss G25-07**  
 SWNE, Section 25, Township 4 North, Range 65 West  
 Weld County, Colorado

Flowline Closure & Soil  
 Analytical Results Map  
 (08/22/2023)

FIGURE  
1

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 31, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

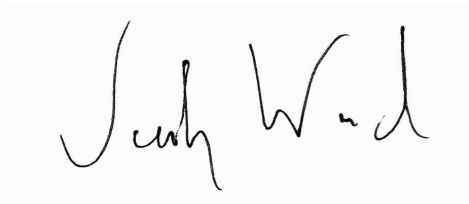
Broomfield, CO 80020

RE: Noble - Plus G25-07 (25-2)

Work Order #2308508

Enclosed are the results of analyses for samples received by Summit Scientific on 08/22/23 17:38. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and "W".

Jacob Wood For Paul Shrewsbury

President



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN

Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-J@3'	2308508-01	Soil	08/22/23 09:52	08/22/23 17:38
FL01-O@3'	2308508-02	Soil	08/22/23 11:00	08/22/23 17:38

Summit Scientific

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

# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2308508	

<b>Send Data To:</b>		<b>Send Invoice To:</b>
Client: Noble / Tasman	Project Manager: Jake Whritenour	Company: Chevron
Address: 6855 W. 119th Ave	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location: Plus G25-07 (25-2)
City/State/Zip: Broomfield, CO 80020		AFE#: UWRWE-A3199-ABN
Phone: 303-903-5168	Project Name: Plus G25-07 (25-2)	PO/Billing Codes:
Sampler Name: Dalton Hagen	Project Number:	Contact: Miguel Barron

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	Metals - 915		HOLD		
1	FL01-3e3'	8/22/23	0952	W			X			X				X	X	X	X	X	X		pH, EC, SAR by saturated paste	
2	FL01-0e3'	I	1100	I			I			I				I	I	I	I	I	I			
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: <i>[Signature]</i>	Date/Time: 8/22/23 1240	Received by: Tasman Lockbox	Date/Time: 8/22/23 1240	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lockbox	Date/Time: 92223 1738	Received by: <i>[Signature]</i>	Date/Time: 9223 1738	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 8.3	Corrected Temperature: ←	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order # 23 68508

Client: Noad Frazman Client Project ID: AUS G25-07 (25-2)

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

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

Temp (°C) 8.3

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"/>	once
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? (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 checked="" type="checkbox"/>	<input 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)? (1) 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? (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

8/22/23  
Date/Time

4.0.0



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-J@3'**  
**2308508-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.4	91.3 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-J@3'**  
**2308508-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0194	58.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0162	48.6 %	40-150		"	"	"	"	

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0936	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/22/23 09:52**

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-J@3'**  
**2308508-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.385	0.200	mg/kg dry	1	BGH0904	08/23/23	08/24/23	EPA 6020B	
Barium	35.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.815	0.400	"	"	"	"	"	"	
Lead	3.10	0.200	"	"	"	"	"	"	
Nickel	0.982	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	3.92	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0984	08/24/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	22.3	0.0525	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	6.01	0.0525	"	"	"	"	"	"	
Sodium	1.18	0.0525	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0573	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-J@3'**  
**2308508-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.2		%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0204	0.0100	mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/22/23 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.32		pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-O@3'**  
**2308508-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0364	91.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0366	91.5 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.7	118 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-O@3'**  
**2308508-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0177	53.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0162	48.5 %	40-150		"	"	"	"	

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0936	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-O@3'**  
**2308508-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.593	0.200	mg/kg dry	1	BGH0904	08/23/23	08/24/23	EPA 6020B	
Barium	57.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.21	0.400	"	"	"	"	"	"	
Lead	5.50	0.200	"	"	"	"	"	"	
Nickel	1.44	0.400	"	"	"	"	"	"	
Silver	0.0488	0.0200	"	"	"	"	"	"	
Zinc	5.88	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0984	08/24/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.0	0.0531	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	9.66	0.0531	"	"	"	"	"	"	
Sodium	1.70	0.0531	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0480	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**FL01-O@3'**  
**2308508-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.2			%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.104	0.0100		mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/22/23 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.25			pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.  
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Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

### 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 BGH0998 - EPA 5030 Soil MS

##### Blank (BGH0998-BLK1)

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0376		"	0.0400		94.0	50-150			
<i>Surrogate: Toluene-d8</i>	0.0387		"	0.0400		96.8	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0373		"	0.0400		93.3	50-150			

##### LCS (BGH0998-BS1)

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	0.0948	0.0020	mg/kg	0.100		94.8	70-130			
Toluene	0.0902	0.0050	"	0.100		90.2	70-130			
Ethylbenzene	0.0914	0.0050	"	0.100		91.4	70-130			
m,p-Xylene	0.204	0.010	"	0.200		102	70-130			
o-Xylene	0.0873	0.0050	"	0.100		87.3	70-130			
1,2,4-Trimethylbenzene	0.0921	0.0050	"	0.100		92.1	70-130			
1,3,5-Trimethylbenzene	0.0958	0.0050	"	0.100		95.8	70-130			
Naphthalene	0.103	0.0038	"	0.100		103	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0490		"	0.0400		122	50-150			
<i>Surrogate: Toluene-d8</i>	0.0394		"	0.0400		98.4	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0379		"	0.0400		94.6	50-150			

##### Matrix Spike (BGH0998-MS1)

Source: 2308483-01

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	0.0970	0.0020	mg/kg	0.100	ND	97.0	70-130			
Toluene	0.102	0.0050	"	0.100	ND	102	70-130			
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
m,p-Xylene	0.206	0.010	"	0.200	ND	103	70-130			
o-Xylene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
1,2,4-Trimethylbenzene	0.0983	0.0050	"	0.100	ND	98.3	70-130			
1,3,5-Trimethylbenzene	0.0937	0.0050	"	0.100	ND	93.7	70-130			
Naphthalene	0.0923	0.0038	"	0.100	ND	92.3	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0368		"	0.0400		92.0	50-150			
<i>Surrogate: Toluene-d8</i>	0.0391		"	0.0400		97.7	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0404		"	0.0400		101	50-150			

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

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

**Summit Scientific**

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

**Batch BGH0998 - EPA 5030 Soil MS**

Matrix Spike Dup (BGH0998-MSD1)	Source: 2308483-01			Prepared: 08/24/23 Analyzed: 08/25/23						
Benzene	0.0998	0.0020	mg/kg	0.100	ND	99.8	70-130	2.84	30	
Toluene	0.0946	0.0050	"	0.100	ND	94.6	70-130	7.98	30	
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	3.59	30	
m,p-Xylene	0.213	0.010	"	0.200	ND	106	70-130	3.27	30	
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	10.7	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	3.54	30	
1,3,5-Trimethylbenzene	0.0980	0.0050	"	0.100	ND	98.0	70-130	4.48	30	
Naphthalene	0.0965	0.0038	"	0.100	ND	96.5	70-130	4.51	30	
Surrogate: 1,2-Dichloroethane-d4	0.0465		"	0.0400		116	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.6	50-150			

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH1002 - EPA 3550A**

**Blank (BGH1002-BLK1)**

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.4		"	12.5		99.0		30-150			

**LCS (BGH1002-BS1)**

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	517	50	mg/kg	500		103		70-130			
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.5		102		30-150			

**Matrix Spike (BGH1002-MS1)**

Source: 2308483-01

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	494	50	mg/kg	500	14.8	95.8		70-130			
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		84.3		30-150			

**Matrix Spike Dup (BGH1002-MSD1)**

Source: 2308483-01

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	560	50	mg/kg	500	14.8	109		70-130	12.6	20	
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		100		30-150			

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH0913 - EPA 5030 Soil MS**

**Blank (BGH0913-BLK1)**

Prepared & Analyzed: 08/23/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0227		"	0.0333		68.0	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0249		"	0.0333		74.8	40-150			

**LCS (BGH0913-BS1)**

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0337	0.00500	mg/kg	0.0333		101	31-137			
Anthracene	0.0301	0.00500	"	0.0333		90.3	30-120			
Benzo (a) anthracene	0.0297	0.00500	"	0.0333		89.0	30-120			
Benzo (a) pyrene	0.0275	0.00500	"	0.0333		82.5	30-120			
Benzo (b) fluoranthene	0.0300	0.00500	"	0.0333		89.9	30-120			
Benzo (k) fluoranthene	0.0301	0.00500	"	0.0333		90.4	30-120			
Chrysene	0.0313	0.00500	"	0.0333		94.0	30-120			
Dibenz (a,h) anthracene	0.0333	0.00500	"	0.0333		99.8	30-120			
Fluoranthene	0.0298	0.00500	"	0.0333		89.5	30-120			
Fluorene	0.0341	0.00500	"	0.0333		102	30-120			
Indeno (1,2,3-cd) pyrene	0.0264	0.00500	"	0.0333		79.2	30-120			
Pyrene	0.0353	0.00500	"	0.0333		106	35-142			
1-Methylnaphthalene	0.0315	0.00500	"	0.0333		94.4	35-142			
2-Methylnaphthalene	0.0311	0.00500	"	0.0333		93.2	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0310		"	0.0333		93.0	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0300		"	0.0333		90.1	40-150			

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH0913 - EPA 5030 Soil MS**

**Matrix Spike (BGH0913-MS1)**

Source: 2308483-01

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0205	0.00500	mg/kg	0.0333	ND	61.5	31-137			
Anthracene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Benzo (a) anthracene	0.0195	0.00500	"	0.0333	ND	58.6	30-120			
Benzo (a) pyrene	0.0166	0.00500	"	0.0333	ND	49.9	30-120			
Benzo (b) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.6	30-120			
Benzo (k) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.6	30-120			
Chrysene	0.0203	0.00500	"	0.0333	ND	60.9	30-120			
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	59.9	30-120			
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120			
Fluorene	0.0217	0.00500	"	0.0333	ND	65.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0260	0.00500	"	0.0333	ND	78.1	30-120			
Pyrene	0.0231	0.00500	"	0.0333	ND	69.3	35-142			
1-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.6	15-130			
2-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.1	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0178		"	0.0333		53.5	40-150			
Surrogate: Fluoranthene-d10	0.0171		"	0.0333		51.3	40-150			

**Matrix Spike Dup (BGH0913-MSD1)**

Source: 2308483-01

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0170	0.00500	mg/kg	0.0333	ND	51.1	31-137	18.5	30
Anthracene	0.0180	0.00500	"	0.0333	ND	54.0	30-120	7.36	30
Benzo (a) anthracene	0.0181	0.00500	"	0.0333	ND	54.4	30-120	7.46	30
Benzo (a) pyrene	0.0160	0.00500	"	0.0333	ND	47.9	30-120	4.16	30
Benzo (b) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.5	30-120	6.06	30
Benzo (k) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.0	30-120	8.68	30
Chrysene	0.0188	0.00500	"	0.0333	ND	56.3	30-120	7.86	30
Dibenz (a,h) anthracene	0.0186	0.00500	"	0.0333	ND	55.9	30-120	6.94	30
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120	6.40	30
Fluorene	0.0179	0.00500	"	0.0333	ND	53.7	30-120	19.0	30
Indeno (1,2,3-cd) pyrene	0.0265	0.00500	"	0.0333	ND	79.4	30-120	1.69	30
Pyrene	0.0204	0.00500	"	0.0333	ND	61.3	35-142	12.2	30
1-Methylnaphthalene	0.0199	0.00500	"	0.0333	ND	59.7	15-130	4.78	50
2-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.6	15-130	2.61	50
Surrogate: 2-Methylnaphthalene-d10	0.0167		"	0.0333		50.1	40-150		
Surrogate: Fluoranthene-d10	0.0162		"	0.0333		48.5	40-150		

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

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

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

**Batch BGH0936 - EPA 3050B**

**Blank (BGH0936-BLK1)**

Prepared: 08/23/23 Analyzed: 08/25/23

Boron ND 0.0100 mg/L

**LCS (BGH0936-BS1)**

Prepared: 08/23/23 Analyzed: 08/25/23

Boron 4.11 0.0100 mg/L 5.00 82.2 80-120

**Duplicate (BGH0936-DUP1)**

**Source: 2308499-01**

Prepared: 08/23/23 Analyzed: 08/25/23

Boron 0.107 0.0100 mg/L ND 200 20 QR-04

**Matrix Spike (BGH0936-MS1)**

**Source: 2308499-01**

Prepared: 08/23/23 Analyzed: 08/25/23

Boron 5.13 0.0100 mg/L 5.00 ND 103 75-125

**Matrix Spike Dup (BGH0936-MSD1)**

**Source: 2308499-01**

Prepared: 08/23/23 Analyzed: 08/25/23

Boron 4.79 0.0100 mg/L 5.00 ND 95.8 75-125 6.79 25

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH0904 - EPA 3050B**

**Blank (BGH0904-BLK1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

**LCS (BGH0904-BS1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Arsenic	38.1	0.200	mg/kg wet	40.0	95.1	80-120
Barium	43.6	0.400	"	40.0	109	80-120
Cadmium	2.14	0.200	"	2.00	107	80-120
Copper	37.5	0.400	"	40.0	93.7	80-120
Lead	21.9	0.200	"	20.0	109	80-120
Nickel	36.9	0.400	"	40.0	92.3	80-120
Silver	2.09	0.0200	"	2.00	104	80-120
Zinc	38.5	0.400	"	40.0	96.1	80-120

**Duplicate (BGH0904-DUP1)**

Source: 2308486-01

Prepared: 08/23/23 Analyzed: 08/24/23

Arsenic	0.654	0.200	mg/kg dry	0.547	17.8	20	
Barium	12.2	0.400	"	12.3	0.638	20	
Cadmium	0.0197	0.200	"	0.0322	48.1	20	QR-01
Copper	0.530	0.400	"	0.587	10.2	20	
Lead	2.52	0.200	"	2.75	8.77	20	
Nickel	0.554	0.400	"	0.636	13.8	20	
Silver	0.0125	0.0200	"	0.0120	3.92	20	
Zinc	3.04	0.400	"	3.83	23.1	20	QR-01
Selenium	ND	0.260	"	ND		200	

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH0904 - EPA 3050B**

**Matrix Spike (BGH0904-MS1)**

Source: 2308486-01

Prepared: 08/23/23 Analyzed: 08/24/23

Arsenic	22.9	0.200	mg/kg dry	48.0	0.547	46.5	75-125				QM-01
Barium	61.5	0.400	"	48.0	12.3	103	75-125				
Cadmium	2.51	0.200	"	2.40	0.0322	103	75-125				
Copper	22.6	0.400	"	48.0	0.587	45.8	75-125				QM-01
Lead	26.0	0.200	"	24.0	2.75	96.9	75-125				
Nickel	22.7	0.400	"	48.0	0.636	46.0	75-125				QM-01
Silver	2.35	0.0200	"	2.40	0.0120	97.2	75-125				
Zinc	26.0	0.400	"	48.0	3.83	46.3	75-125				QM-01

**Matrix Spike Dup (BGH0904-MSD1)**

Source: 2308486-01

Prepared: 08/23/23 Analyzed: 08/24/23

Arsenic	20.6	0.200	mg/kg dry	48.0	0.547	41.8	75-125	10.3	25		QM-01
Barium	64.4	0.400	"	48.0	12.3	109	75-125	4.61	25		
Cadmium	2.32	0.200	"	2.40	0.0322	95.4	75-125	7.94	25		
Copper	20.7	0.400	"	48.0	0.587	41.9	75-125	8.69	25		QM-01
Lead	24.8	0.200	"	24.0	2.75	91.7	75-125	4.92	25		
Nickel	20.8	0.400	"	48.0	0.636	42.0	75-125	8.69	25		QM-01
Silver	2.20	0.0200	"	2.40	0.0120	91.3	75-125	6.20	25		
Zinc	24.5	0.400	"	48.0	3.83	43.1	75-125	6.07	25		QM-01

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

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

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

**Batch BGH0984 - 3060A Mod**

**Blank (BGH0984-BLK1)**

Prepared & Analyzed: 08/24/23

Chromium, Hexavalent      ND      0.30    mg/kg wet

**LCS (BGH0984-BS1)**

Prepared & Analyzed: 08/24/23

Chromium, Hexavalent      25.4      0.30    mg/kg wet      25.0      101      80-120

**Duplicate (BGH0984-DUP1)**

**Source: 2308477-01**

Prepared & Analyzed: 08/24/23

Chromium, Hexavalent      ND      0.30    mg/kg dry      ND      20

**Matrix Spike (BGH0984-MS1)**

**Source: 2308477-01**

Prepared & Analyzed: 08/24/23

Chromium, Hexavalent      34.1      0.30    mg/kg dry      26.4      ND      129      75-125      QM-06

**Matrix Spike Dup (BGH0984-MSD1)**

**Source: 2308477-01**

Prepared & Analyzed: 08/24/23

Chromium, Hexavalent      35.5      0.30    mg/kg dry      26.4      ND      135      75-125      4.09      20      QM-06

Summit Scientific



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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH1070 - General Preparation**

**Blank (BGH1070-BLK1)**

Prepared: 08/25/23 Analyzed: 08/29/23

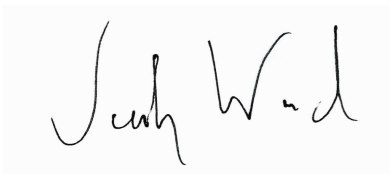
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

**LCS (BGH1070-BS1)**

Prepared: 08/25/23 Analyzed: 08/29/23

Calcium	5.49	0.0500	mg/L wet	5.00	110	70-130				
Magnesium	5.42	0.0500	"	5.00	108	70-130				
Sodium	5.34	0.0500	"	5.00	107	70-130				

Summit Scientific



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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH0926 - General Preparation**


**Duplicate (BGH0926-DUP1)**

Source: 2308482-01

Prepared: 08/23/23 Analyzed: 08/24/23

% Solids	92.7		%		92.0			0.665	20	
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Summit Scientific



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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

**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 BGH1106 - General Preparation**

**Blank (BGH1106-BLK1)**

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGH1106-BS1)**

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

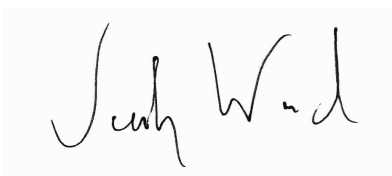
**Duplicate (BGH1106-DUP1)**

Source: 2308478-01

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) 0.639 0.0100 mmhos/cm 0.639 0.00 20

Summit Scientific



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Tasman Geosciences  
 6855 W. 119th Ave.  
 Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
 Project Manager: Jacob Whritenour

**Reported:**  
 08/31/23 12:08

**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 BGH1103 - General Preparation**

**LCS (BGH1103-BS1)**

Prepared & Analyzed: 08/28/23

pH	9.16	pH Units	9.18	99.8	95-105
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**Duplicate (BGH1103-DUP1)**

Source: 2308478-01

Prepared & Analyzed: 08/28/23

pH	7.63	pH Units	7.63	0.00	20
----	------	----------	------	------	----

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 12:08

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 31, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

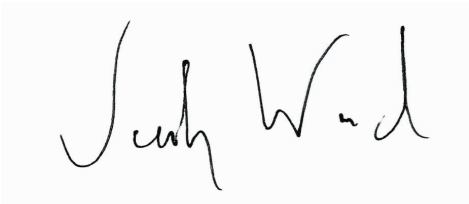
Broomfield, CO 80020

RE: Noble - Plus G25-07 (25-2)

Work Order #2308483

Enclosed are the results of analyses for samples received by Summit Scientific on 08/21/23 17:33. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jacob Wood For Paul Shrewsbury

President



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-A@2'	2308483-01	Soil	08/21/23 09:29	08/21/23 17:33
FL01-E@4'	2308483-02	Soil	08/21/23 13:05	08/21/23 17:33
FL01-F@3'	2308483-03	Soil	08/21/23 13:24	08/21/23 17:33
FL01-G@4'	2308483-04	Soil	08/21/23 14:01	08/21/23 17:33
FL01-I@3'	2308483-05	Soil	08/21/23 14:13	08/21/23 17:33
FL01-B@4'	2308483-06	Soil	08/21/23 14:29	08/21/23 17:33

Summit Scientific

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# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2308483	

Client: Noble / Tasman		Project Manager: Jake Whritenour		Send Invoice To:	
Address: 6855 W. 119th Ave		E-Mail: Jwhritenour@tasman-geo.com		Company: Chevron	
City/State/Zip: Broomfield, CO 80020		Project Name: PLUS G25-07 (25-2)		Project Name/Location: PLUS G25-07 (25-2)	
Phone: 303-903-5168		Project Number:		AFE#: UWRWE-A3199-ABN	
Sampler Name: Dalton Hagen				PO/Billing Codes:	
				Contact: Miguel Barron	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	Metals - 915		HOLD		
1	FL01-AE2'	8/21/23	0929	3			X			X			X	X	X	X	X	X	X		pH, EC, SAR by saturated paste	
2	FL01-EQ4'		1305	1																		
3	FL01-FE3'		1324	1																		
4	FL01-GP4'		1401	1																		
5	FL01-IE3'		1413	1																		
6	FL01-BE4'		1429	1																		
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: 	Date/Time: 8/21/23	Received by: Tasman Lockbox	Date/Time: 8/21/23	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 8/21/23	Received by: 	Date/Time: 8/21/23	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 9.8	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2308483

Client: Nick Fasman Client Project ID: Plus G25-07(25-2)

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? (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"/>	or JGE
If custody seals are present, are they intact? (1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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? (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 checked="" type="checkbox"/>	<input 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)? (1) 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? (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.				

Josh  
Custodian Printed Name

08/21/23  
Date/Time

365



Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-A@2'**  
**2308483-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0410	103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.6 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.7	118 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-A@2'**  
**2308483-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0146	43.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0137	41.2 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 09:29**

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-A@2'**  
**2308483-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.41	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	52.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.18	0.400	"	"	"	"	"	"	
Lead	16.0	0.200	"	"	"	"	"	"	
Nickel	2.65	0.400	"	"	"	"	"	"	
Silver	0.0226	0.0200	"	"	"	"	"	"	
Zinc	22.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	52.7	0.0534	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	6.88	0.0534	"	"	"	"	"	"	
Sodium	4.12	0.0534	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.142	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-A@2'**  
**2308483-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.6		%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.263	0.0100	mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.20		pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-E@4'**  
**2308483-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0349	87.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	103 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.0	112 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-E@4'**  
**2308483-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0135	40.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0136	40.7 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 13:05**

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-E@4'**  
**2308483-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.06	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	31.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.01	0.400	"	"	"	"	"	"	
Lead	3.18	0.200	"	"	"	"	"	"	
Nickel	2.17	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.37	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.9	0.0513	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	11.1	0.0513	"	"	"	"	"	"	
Sodium	10.4	0.0513	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.379	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-E@4'**  
**2308483-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.5			%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.119	0.0100		mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	6.39			pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-F@3'**  
**2308483-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0284	71.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0344	86.0 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/24/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.2	106 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-F@3'**  
**2308483-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0137	41.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0142	42.5 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-F@3'**  
**2308483-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.52	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	44.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.85	0.400	"	"	"	"	"	"	
Lead	4.24	0.200	"	"	"	"	"	"	
Nickel	3.25	0.400	"	"	"	"	"	"	
Silver	0.0205	0.0200	"	"	"	"	"	"	
Zinc	11.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	55.0	0.0533	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	11.6	0.0533	"	"	"	"	"	"	
Sodium	0.483	0.0533	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0154	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-F@3'**  
**2308483-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.9			%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.102	0.0100		mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.26			pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-G@4'**  
**2308483-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0345	86.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0367	91.7 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGH1002	08/24/23	08/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.2	105 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-G@4'**  
**2308483-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0148	44.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0135	40.4 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0345</b>	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-G@4'**  
**2308483-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.44	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	48.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.17	0.400	"	"	"	"	"	"	
Lead	4.05	0.200	"	"	"	"	"	"	
Nickel	2.50	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	10.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	57.2	0.0518	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	16.0	0.0518	"	"	"	"	"	"	
Sodium	3.85	0.0518	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.116	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-G@4'**  
**2308483-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0682	0.0100	mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 14:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.52		pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-I@3'**  
**2308483-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0268	67.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.5 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.3	98.3 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-I@3'**  
**2308483-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0193	58.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0180	54.0 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-I@3'**  
**2308483-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.34	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	42.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.14	0.400	"	"	"	"	"	"	
Lead	4.27	0.200	"	"	"	"	"	"	
Nickel	2.90	0.400	"	"	"	"	"	"	
Silver	0.0200	0.0200	"	"	"	"	"	"	
Zinc	12.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.8	0.0522	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	8.98	0.0522	"	"	"	"	"	"	
Sodium	0.920	0.0522	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0323	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-I@3'**  
**2308483-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.8		%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0963	0.0100	mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 14:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.91		pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-B@4'**  
**2308483-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH0998	08/24/23	08/25/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0338	84.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.2 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1002	08/24/23	08/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	15.5	124 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-B@4'**  
**2308483-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH0913	08/23/23	08/23/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0195	58.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0167	50.1 %	40-150		"	"	"	"	

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0921	08/23/23	08/25/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-B@4'**  
**2308483-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.65	0.200	mg/kg dry	1	BGH0894	08/22/23	08/28/23	EPA 6020B	
Barium	41.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.10	0.400	"	"	"	"	"	"	
Lead	3.87	0.200	"	"	"	"	"	"	
Nickel	3.03	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0930	08/23/23	08/24/23	EPA 7196A	

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	67.6	0.0547	mg/L dry	1	BGH1070	08/25/23	08/29/23	EPA 6020B	
Magnesium	6.05	0.0547	"	"	"	"	"	"	
Sodium	0.806	0.0547	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0252	0.00100	units	1	BGH1203	08/30/23	08/30/23	Calculation	

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

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**FL01-B@4'**  
**2308483-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.4		%	1	BGH0926	08/23/23	08/24/23	Calculation	

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.147	0.0100	mmhos/cm	1	BGH1106	08/28/23	08/28/23	EPA 120.1	

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

Date Sampled: **08/21/23 14:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.88		pH Units	1	BGH1103	08/28/23	08/28/23	EPA 9045D	

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

### 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 BGH0998 - EPA 5030 Soil MS

##### Blank (BGH0998-BLK1)

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0400		94.0	50-150			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.3	50-150			

##### LCS (BGH0998-BS1)

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	0.0948	0.0020	mg/kg	0.100		94.8	70-130			
Toluene	0.0902	0.0050	"	0.100		90.2	70-130			
Ethylbenzene	0.0914	0.0050	"	0.100		91.4	70-130			
m,p-Xylene	0.204	0.010	"	0.200		102	70-130			
o-Xylene	0.0873	0.0050	"	0.100		87.3	70-130			
1,2,4-Trimethylbenzene	0.0921	0.0050	"	0.100		92.1	70-130			
1,3,5-Trimethylbenzene	0.0958	0.0050	"	0.100		95.8	70-130			
Naphthalene	0.103	0.0038	"	0.100		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0490		"	0.0400		122	50-150			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.6	50-150			

##### Matrix Spike (BGH0998-MS1)

Source: 2308483-01

Prepared: 08/24/23 Analyzed: 08/25/23

Benzene	0.0970	0.0020	mg/kg	0.100	ND	97.0	70-130			
Toluene	0.102	0.0050	"	0.100	ND	102	70-130			
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
m,p-Xylene	0.206	0.010	"	0.200	ND	103	70-130			
o-Xylene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
1,2,4-Trimethylbenzene	0.0983	0.0050	"	0.100	ND	98.3	70-130			
1,3,5-Trimethylbenzene	0.0937	0.0050	"	0.100	ND	93.7	70-130			
Naphthalene	0.0923	0.0038	"	0.100	ND	92.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0368		"	0.0400		92.0	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

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

**Summit Scientific**

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

**Batch BGH0998 - EPA 5030 Soil MS**

Matrix Spike Dup (BGH0998-MSD1)	Source: 2308483-01			Prepared: 08/24/23 Analyzed: 08/25/23						
Benzene	0.0998	0.0020	mg/kg	0.100	ND	99.8	70-130	2.84	30	
Toluene	0.0946	0.0050	"	0.100	ND	94.6	70-130	7.98	30	
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	3.59	30	
m,p-Xylene	0.213	0.010	"	0.200	ND	106	70-130	3.27	30	
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	10.7	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	3.54	30	
1,3,5-Trimethylbenzene	0.0980	0.0050	"	0.100	ND	98.0	70-130	4.48	30	
Naphthalene	0.0965	0.0038	"	0.100	ND	96.5	70-130	4.51	30	
Surrogate: 1,2-Dichloroethane-d4	0.0465		"	0.0400		116	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.6	50-150			

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH1002 - EPA 3550A**

**Blank (BGH1002-BLK1)**

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.4		"	12.5		99.0	30-150				

**LCS (BGH1002-BS1)**

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	517	50	mg/kg	500		103	70-130				
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.5		102	30-150				

**Matrix Spike (BGH1002-MS1)**

Source: 2308483-01

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	494	50	mg/kg	500	14.8	95.8	70-130				
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		84.3	30-150				

**Matrix Spike Dup (BGH1002-MSD1)**

Source: 2308483-01

Prepared & Analyzed: 08/24/23

C10-C28 (DRO)	560	50	mg/kg	500	14.8	109	70-130	12.6	20		
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		100	30-150				

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6855 W. 119th Ave.  
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Project: Noble - Plus G25-07 (25-2)  
Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH0913 - EPA 5030 Soil MS**

**Blank (BGH0913-BLK1)**

Prepared & Analyzed: 08/23/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0227		"	0.0333		68.0	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0249		"	0.0333		74.8	40-150			

**LCS (BGH0913-BS1)**

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0337	0.00500	mg/kg	0.0333	101	31-137				
Anthracene	0.0301	0.00500	"	0.0333	90.3	30-120				
Benzo (a) anthracene	0.0297	0.00500	"	0.0333	89.0	30-120				
Benzo (a) pyrene	0.0275	0.00500	"	0.0333	82.5	30-120				
Benzo (b) fluoranthene	0.0300	0.00500	"	0.0333	89.9	30-120				
Benzo (k) fluoranthene	0.0301	0.00500	"	0.0333	90.4	30-120				
Chrysene	0.0313	0.00500	"	0.0333	94.0	30-120				
Dibenz (a,h) anthracene	0.0333	0.00500	"	0.0333	99.8	30-120				
Fluoranthene	0.0298	0.00500	"	0.0333	89.5	30-120				
Fluorene	0.0341	0.00500	"	0.0333	102	30-120				
Indeno (1,2,3-cd) pyrene	0.0264	0.00500	"	0.0333	79.2	30-120				
Pyrene	0.0353	0.00500	"	0.0333	106	35-142				
1-Methylnaphthalene	0.0315	0.00500	"	0.0333	94.4	35-142				
2-Methylnaphthalene	0.0311	0.00500	"	0.0333	93.2	35-142				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0310		"	0.0333	93.0	40-150				
<i>Surrogate: Fluoranthene-d10</i>	0.0300		"	0.0333	90.1	40-150				

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH0913 - EPA 5030 Soil MS**

**Matrix Spike (BGH0913-MS1)**

Source: 2308483-01

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0205	0.00500	mg/kg	0.0333	ND	61.5	31-137			
Anthracene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Benzo (a) anthracene	0.0195	0.00500	"	0.0333	ND	58.6	30-120			
Benzo (a) pyrene	0.0166	0.00500	"	0.0333	ND	49.9	30-120			
Benzo (b) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.6	30-120			
Benzo (k) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.6	30-120			
Chrysene	0.0203	0.00500	"	0.0333	ND	60.9	30-120			
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	59.9	30-120			
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120			
Fluorene	0.0217	0.00500	"	0.0333	ND	65.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0260	0.00500	"	0.0333	ND	78.1	30-120			
Pyrene	0.0231	0.00500	"	0.0333	ND	69.3	35-142			
1-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.6	15-130			
2-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.1	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0178		"	0.0333		53.5	40-150			
Surrogate: Fluoranthene-d10	0.0171		"	0.0333		51.3	40-150			

**Matrix Spike Dup (BGH0913-MSD1)**

Source: 2308483-01

Prepared & Analyzed: 08/23/23

Acenaphthene	0.0170	0.00500	mg/kg	0.0333	ND	51.1	31-137	18.5	30
Anthracene	0.0180	0.00500	"	0.0333	ND	54.0	30-120	7.36	30
Benzo (a) anthracene	0.0181	0.00500	"	0.0333	ND	54.4	30-120	7.46	30
Benzo (a) pyrene	0.0160	0.00500	"	0.0333	ND	47.9	30-120	4.16	30
Benzo (b) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.5	30-120	6.06	30
Benzo (k) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.0	30-120	8.68	30
Chrysene	0.0188	0.00500	"	0.0333	ND	56.3	30-120	7.86	30
Dibenz (a,h) anthracene	0.0186	0.00500	"	0.0333	ND	55.9	30-120	6.94	30
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120	6.40	30
Fluorene	0.0179	0.00500	"	0.0333	ND	53.7	30-120	19.0	30
Indeno (1,2,3-cd) pyrene	0.0265	0.00500	"	0.0333	ND	79.4	30-120	1.69	30
Pyrene	0.0204	0.00500	"	0.0333	ND	61.3	35-142	12.2	30
1-Methylnaphthalene	0.0199	0.00500	"	0.0333	ND	59.7	15-130	4.78	50
2-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.6	15-130	2.61	50
Surrogate: 2-Methylnaphthalene-d10	0.0167		"	0.0333		50.1	40-150		
Surrogate: Fluoranthene-d10	0.0162		"	0.0333		48.5	40-150		

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

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

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

**Batch BGH0921 - EPA 3050B**

**Blank (BGH0921-BLK1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Boron ND 0.0100 mg/L

**LCS (BGH0921-BS1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Boron 4.33 0.0100 mg/L 5.00 86.6 80-120

**Duplicate (BGH0921-DUP1)**

**Source: 2308482-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Boron ND 0.0100 mg/L ND 20

**Matrix Spike (BGH0921-MS1)**

**Source: 2308482-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Boron 4.60 0.0100 mg/L 5.00 ND 91.9 75-125

**Matrix Spike Dup (BGH0921-MSD1)**

**Source: 2308482-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Boron 4.65 0.0100 mg/L 5.00 ND 93.0 75-125 1.21 25

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

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

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

**Batch BGH0894 - EPA 3050B**

**Blank (BGH0894-BLK1)**

Prepared: 08/22/23 Analyzed: 08/28/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

**LCS (BGH0894-BS1)**

Prepared: 08/22/23 Analyzed: 08/28/23

Arsenic	43.1	0.200	mg/kg wet	40.0		108	80-120
Barium	41.3	0.400	"	40.0		103	80-120
Cadmium	1.97	0.200	"	2.00		98.7	80-120
Copper	39.5	0.400	"	40.0		98.6	80-120
Lead	19.9	0.200	"	20.0		99.5	80-120
Nickel	38.7	0.400	"	40.0		96.8	80-120
Silver	1.97	0.0200	"	2.00		98.4	80-120
Zinc	39.7	0.400	"	40.0		99.3	80-120

**Duplicate (BGH0894-DUP1)**

Source: 2308478-01

Prepared: 08/22/23 Analyzed: 08/28/23

Arsenic	2.68	0.200	mg/kg dry	2.24		18.0	20
Barium	59.6	0.400	"	51.2		15.2	20
Cadmium	0.310	0.200	"	0.278		11.0	20
Copper	6.88	0.400	"	6.10		12.1	20
Lead	11.9	0.200	"	10.5		13.0	20
Nickel	3.55	0.400	"	3.04		15.6	20
Silver	0.0950	0.0200	"	0.0859		10.1	20
Zinc	24.8	0.400	"	22.8		8.15	20
Selenium	ND	0.260	"	ND			200

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH0894 - EPA 3050B**

**Matrix Spike (BGH0894-MS1)**

Source: 2308478-01

Prepared: 08/22/23 Analyzed: 08/28/23

Arsenic	50.6	0.200	mg/kg dry	43.6	2.24	111	75-125				
Barium	110	0.400	"	43.6	51.2	135	75-125				QM-07
Cadmium	2.69	0.200	"	2.18	0.278	111	75-125				
Copper	40.9	0.400	"	43.6	6.10	79.8	75-125				
Lead	37.7	0.200	"	21.8	10.5	125	75-125				
Nickel	35.7	0.400	"	43.6	3.04	74.9	75-125				QM-07
Silver	2.34	0.0200	"	2.18	0.0859	104	75-125				
Zinc	61.7	0.400	"	43.6	22.8	89.2	75-125				

**Matrix Spike Dup (BGH0894-MSD1)**

Source: 2308478-01

Prepared: 08/22/23 Analyzed: 08/28/23

Arsenic	43.7	0.200	mg/kg dry	43.6	2.24	95.2	75-125	14.6	25		
Barium	98.9	0.400	"	43.6	51.2	110	75-125	10.7	25		
Cadmium	2.34	0.200	"	2.18	0.278	94.4	75-125	14.0	25		
Copper	36.4	0.400	"	43.6	6.10	69.4	75-125	11.7	25		QM-07
Lead	32.3	0.200	"	21.8	10.5	100	75-125	15.3	25		
Nickel	32.3	0.400	"	43.6	3.04	67.2	75-125	9.90	25		QM-07
Silver	2.06	0.0200	"	2.18	0.0859	90.5	75-125	12.9	25		
Zinc	55.3	0.400	"	43.6	22.8	74.5	75-125	10.9	25		QM-07

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

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

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

**Batch BGH0930 - 3060A Mod**

**Blank (BGH0930-BLK1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGH0930-BS1)**

Prepared: 08/23/23 Analyzed: 08/24/23

Chromium, Hexavalent 26.6 0.30 mg/kg wet 25.0 106 80-120

**Duplicate (BGH0930-DUP1)**

**Source: 2308475-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGH0930-MS1)**

**Source: 2308475-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Chromium, Hexavalent 25.6 0.30 mg/kg dry 28.1 ND 91.2 75-125

**Matrix Spike Dup (BGH0930-MSD1)**

**Source: 2308475-01**

Prepared: 08/23/23 Analyzed: 08/24/23

Chromium, Hexavalent 25.5 0.30 mg/kg dry 28.1 ND 91.0 75-125 0.220 20

Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH1070 - General Preparation**

**Blank (BGH1070-BLK1)**

Prepared: 08/25/23 Analyzed: 08/29/23

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

**LCS (BGH1070-BS1)**

Prepared: 08/25/23 Analyzed: 08/29/23

Calcium	5.49	0.0500	mg/L wet	5.00	110	70-130				
Magnesium	5.42	0.0500	"	5.00	108	70-130				
Sodium	5.34	0.0500	"	5.00	107	70-130				

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Tasman Geosciences  
 6855 W. 119th Ave.  
 Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN

Project Manager: Jacob Whritenour

**Reported:**  
 08/31/23 11:48

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

**Summit Scientific**

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

**Batch BGH0926 - General Preparation**

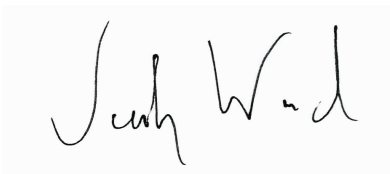
**Duplicate (BGH0926-DUP1)**

**Source: 2308482-01**

Prepared: 08/23/23 Analyzed: 08/24/23

% Solids	92.7		%		92.0			0.665	20	
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH1106 - General Preparation**

**Blank (BGH1106-BLK1)**

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGH1106-BS1)**

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105


**Duplicate (BGH1106-DUP1)**

Source: 2308478-01

Prepared & Analyzed: 08/28/23

Specific Conductance (EC) 0.639 0.0100 mmhos/cm 0.639 0.00 20

Summit Scientific



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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

**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 BGH1103 - General Preparation**

**LCS (BGH1103-BS1)**

Prepared & Analyzed: 08/28/23

pH	9.16	pH Units	9.18	99.8	95-105
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**Duplicate (BGH1103-DUP1)**

Source: 2308478-01

Prepared & Analyzed: 08/28/23

pH	7.63	pH Units	7.63	0.00	20
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Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Plus G25-07 (25-2)

Project Number: UWRWE-A3199-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/31/23 11:48

### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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