

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 24, 2024

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Gutterson State CC20-04 FL

Work Order #2406087

Enclosed are the results of analyses for samples received by Summit Scientific on 06/06/24 17:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Guttarsen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-07@2'	2406087-01	Soil	06/06/24 09:39	06/06/24 17:53
FL01-08@2'	2406087-02	Soil	06/06/24 09:50	06/06/24 17:53
FL01-09@2'	2406087-03	Soil	06/06/24 09:56	06/06/24 17:53
FL01-12@2'	2406087-04	Soil	06/06/24 10:37	06/06/24 17:53
FL01R-W@2'	2406087-05	Soil	06/06/24 10:40	06/06/24 17:53
BKG01@2'	2406087-06	Soil	06/06/24 10:43	06/06/24 17:53


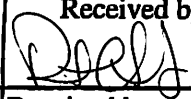
SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2406087	

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: Gutteresen State CO20.04 FL	Project Name/Location: Gutteresen State CO20.04 FL
Phone: 4788574408	Project Number:	AFB#: UURWE - A3676 - ABN
Sampler Name: Matthew Wentzel		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	FL01-07@2'	6-6-24	0939	3			X			X				X	X	X	X	X	X	X	X	X	pH, EC, SAR by saturated paste
2	FL01-09@2'		0950											X	X	X	X	X	X	X	X	X	
3	FL01-09@2'		0956											X	X	X	X	X	X	X	X	X	
4	FL01-12@2'		1037											X	X	X	X	X	X	X	X	X	
5	FL012-W@2'		1040											X	X	X	X	X	X	X	X	X	
6	BK001@2'		1043											X	X	X	X	X	X	X	X	X	
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

Relinquished by: 	Date/Time: 6-6-24 1405	Received by: Tasman Lock Box	Date/Time: 6-6-24 1406	TAT Business Days	Field DO	Notes:
Relinquished by: Tasmanlockbox	Date/Time: 6/6/24 1753	Received by: 	Date/Time: 6/6/24 1753	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 6.4	Corrected Temperature: 6	IR gun #:		HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2406087

Client: Noble Gasman Client Project ID: Gutteresen State CC20-04 FL

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

[] [] [] [] []

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

Temp (°C) 8.4 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"/>	NOTE
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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input 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 ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

AS

Custodian Printed Name

6/6/21
Date/Time



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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-07@2'
2406087-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0171	06/07/24	06/08/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	0.014	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0419	105 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0376	94.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0173	06/07/24	06/07/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.1	105 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0203	0.00500	mg/kg	1	BHF0170	06/07/24	06/08/24	EPA 8270D SIM	
Anthracene	0.0474	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0772	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0541	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0794	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0292	0.00500	"	"	"	"	"	"	
Chrysene	0.0778	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.00793	0.00500	"	"	"	"	"	"	
Fluoranthene	0.188	0.00500	"	"	"	"	"	"	E
Fluorene	0.0286	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0423	0.00500	"	"	"	"	"	"	
Pyrene	0.158	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0179	53.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0203	60.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0177	06/07/24	06/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.17	0.179	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	

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Project Number: UWRWE-A3676-ABN
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Reported:
06/24/24 08:14

FL01-07@2'
2406087-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	35.7	0.357	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	
Cadmium	ND	0.179	"	"	"	"	"	"	
Copper	2.36	0.357	"	"	"	"	"	"	
Lead	2.68	0.179	"	"	"	"	"	"	
Nickel	2.99	0.357	"	"	"	"	"	"	
Silver	0.0180	0.0179	"	"	"	"	"	"	
Zinc	11.3	0.357	"	"	"	"	"	"	
Selenium	ND	0.232	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	170	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	28.5	0.0500	"	"	"	"	"	"	
Sodium	1.23	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0230	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Reported:
06/24/24 08:14

FL01-07@2'
2406087-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	95.1	%	1	BHF0285	06/11/24	06/11/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0638	0.0100	mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.54		pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

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Project Number: UWRWE-A3676-ABN
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Reported:
06/24/24 08:14

FL01-08@2'
2406087-02 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHF0171	06/07/24	06/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0410	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0173	06/07/24	06/07/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.2	114 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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06/24/24 08:14

FL01-08@2'
2406087-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0170	06/07/24	06/08/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0279	83.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0279	83.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0177	06/07/24	06/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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06/24/24 08:14

FL01-08@2'
2406087-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.42	0.200	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	
Barium	34.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.59	0.400	"	"	"	"	"	"	
Lead	3.13	0.200	"	"	"	"	"	"	
Nickel	2.77	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	10.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	93.8	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	22.9	0.0500	"	"	"	"	"	"	
Sodium	1.64	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0394	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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06/24/24 08:14

FL01-08@2'
2406087-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	98.0			%	1	BHF0285	06/11/24	06/11/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.114	0.0100		mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.60			pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-09@2'
2406087-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHF0171	06/07/24	06/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0418	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0173	06/07/24	06/07/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.7	109 %	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 - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-09@2'
2406087-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0170	06/07/24	06/08/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.00656	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00578	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0294	88.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0268	80.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0177	06/07/24	06/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 09:56**

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 - Guttarsen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-09@2'
2406087-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.74	0.200	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	
Barium	56.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.10	0.400	"	"	"	"	"	"	
Lead	4.51	0.200	"	"	"	"	"	"	
Nickel	4.09	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	16.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.3	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	7.81	0.0500	"	"	"	"	"	"	
Sodium	19.2	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.778	0.00100	units	1	BHF0429	06/14/24	06/14/24	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 - Gutterson State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-09@2'
2406087-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.5			%	1	BHF0285	06/11/24	06/11/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.388	0.0100		mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 09:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.83			pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-12@2'
2406087-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0171	06/07/24	06/08/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0414	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0373	93.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0173	06/07/24	06/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.9	119 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
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Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-12@2'
2406087-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0170	06/07/24	06/08/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0263	78.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0270	81.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0177	06/07/24	06/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 10:37**

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 - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-12@2'
2406087-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.52	0.200	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B
Barium	59.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.20	0.400	"	"	"	"	"	"
Lead	4.75	0.200	"	"	"	"	"	"
Nickel	4.18	0.400	"	"	"	"	"	"
Silver	0.0231	0.0200	"	"	"	"	"	"
Zinc	18.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.9	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	6.37	0.0500	"	"	"	"	"	"	
Sodium	14.7	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.601	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Guttarsen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01-12@2'
2406087-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.6			%	1	BHF0285	06/11/24	06/11/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.342	0.0100		mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.14			pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01R-W@2'
2406087-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHF0171	06/07/24	06/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0411	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	98.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0372	92.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0173	06/07/24	06/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.1	96.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
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Project: Noble - Gutterson State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01R-W@2'
2406087-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0170	06/07/24	06/08/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0212	63.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0226	67.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0177	06/07/24	06/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 10:40**

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 - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01R-W@2'
2406087-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.71	0.200	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	
Barium	54.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.63	0.400	"	"	"	"	"	"	
Lead	3.98	0.200	"	"	"	"	"	"	
Nickel	4.28	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	16.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	40.8	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	7.81	0.0500	"	"	"	"	"	"	
Sodium	8.25	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.310	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Gutterson State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

FL01R-W@2'
2406087-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.6			%	1	BHF0285	06/11/24	06/11/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.287	0.0100		mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.16			pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

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Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

BKG01@2'
2406087-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.19	0.200	mg/kg dry	1	BHF0287	06/11/24	06/13/24	EPA 6020B	
Barium	99.6	0.400	"	"	"	"	"	"	
Cadmium	0.212	0.200	"	"	"	"	"	"	
Copper	10.7	0.400	"	"	"	"	"	"	
Lead	8.57	0.200	"	"	"	"	"	"	
Nickel	11.6	0.400	"	"	"	"	"	"	
Silver	0.0437	0.0200	"	"	"	"	"	"	
Zinc	37.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0282	06/11/24	06/11/24	EPA 7196A	

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

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	623	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	59.9	0.0500	"	"	"	"	"	"	
Sodium	3.29	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.0337	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Noble - Guttarsen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

BKG01@2'
2406087-06 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.7			%	1	BHF0285	06/11/24	06/11/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.161	0.0100		mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.55			pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

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Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0171 - EPA 5030 Soil MS

Blank (BHF0171-BLK1)

Prepared & Analyzed: 06/07/24

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.4	50-150				
Surrogate: Toluene-d8	0.0397		"	0.0400		99.3	50-150				
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.7	50-150				

LCS (BHF0171-BS1)

Prepared & Analyzed: 06/07/24

Benzene	0.158	0.0020	mg/kg	0.150		105	70-130				
Toluene	0.157	0.0050	"	0.150		104	70-130				
Ethylbenzene	0.169	0.0050	"	0.150		113	70-130				
m,p-Xylene	0.342	0.010	"	0.300		114	70-130				
o-Xylene	0.159	0.0050	"	0.150		106	70-130				
1,2,4-Trimethylbenzene	0.155	0.0050	"	0.150		103	70-130				
1,3,5-Trimethylbenzene	0.155	0.0050	"	0.150		103	70-130				
Naphthalene	0.155	0.0038	"	0.150		103	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400		97.4	50-150				
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.8	50-150				

Matrix Spike (BHF0171-MS1)

Source: 2406085-01

Prepared & Analyzed: 06/07/24

Benzene	0.159	0.0020	mg/kg	0.150	ND	106	70-130				
Toluene	0.161	0.0050	"	0.150	ND	107	70-130				
Ethylbenzene	0.172	0.0050	"	0.150	ND	115	70-130				
m,p-Xylene	0.343	0.010	"	0.300	ND	114	70-130				
o-Xylene	0.155	0.0050	"	0.150	ND	103	70-130				
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.150	ND	98.7	70-130				
1,3,5-Trimethylbenzene	0.152	0.0050	"	0.150	ND	102	70-130				
Naphthalene	0.141	0.0038	"	0.150	ND	93.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0401		"	0.0400		100	50-150				
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	50-150				

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Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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

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

Batch BHF0171 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0171-MSD1)	Source: 2406085-01			Prepared & Analyzed: 06/07/24						
Benzene	0.163	0.0020	mg/kg	0.150	ND	109	70-130	2.40	30	
Toluene	0.165	0.0050	"	0.150	ND	110	70-130	2.72	30	
Ethylbenzene	0.179	0.0050	"	0.150	ND	119	70-130	4.01	30	
m,p-Xylene	0.362	0.010	"	0.300	ND	121	70-130	5.38	30	
o-Xylene	0.163	0.0050	"	0.150	ND	109	70-130	4.88	30	
1,2,4-Trimethylbenzene	0.154	0.0050	"	0.150	ND	102	70-130	3.76	30	
1,3,5-Trimethylbenzene	0.157	0.0050	"	0.150	ND	105	70-130	3.14	30	
Naphthalene	0.148	0.0038	"	0.150	ND	98.4	70-130	4.76	30	
Surrogate: 1,2-Dichloroethane-d4	0.0396		"	0.0400		98.9	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		99.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.0	50-150			

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Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0173 - EPA 3550A

Blank (BHF0173-BLK1)

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	18.4		"	12.5		147		30-150			

LCS (BHF0173-BS1)

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	516	50	mg/kg	500		103		70-130			
Surrogate: <i>o</i> -Terphenyl	15.1		"	12.5		120		30-150			

Matrix Spike (BHF0173-MS1)

Source: 2406085-01

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	560	50	mg/kg	500	29.9	106		70-130			
Surrogate: <i>o</i> -Terphenyl	17.1		"	12.5		136		30-150			

Matrix Spike Dup (BHF0173-MSD1)

Source: 2406085-01

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	552	50	mg/kg	500	29.9	104		70-130	1.51	20	
Surrogate: <i>o</i> -Terphenyl	16.9		"	12.5		135		30-150			

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Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch BHF0170 - EPA 5030 Soil MS

Blank (BHF0170-BLK1)

Prepared & Analyzed: 06/07/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0303		"	0.0333		91.0	40-150			
Surrogate: Fluoranthene-d10	0.0289		"	0.0333		86.6	40-150			

LCS (BHF0170-BS1)

Prepared & Analyzed: 06/07/24

Acenaphthene	0.0247	0.00500	mg/kg	0.0333		74.2	31-137			
Anthracene	0.0262	0.00500	"	0.0333		78.7	30-120			
Benzo (a) anthracene	0.0293	0.00500	"	0.0333		88.0	30-120			
Benzo (a) pyrene	0.0258	0.00500	"	0.0333		77.3	30-120			
Benzo (b) fluoranthene	0.0270	0.00500	"	0.0333		80.9	30-120			
Benzo (k) fluoranthene	0.0266	0.00500	"	0.0333		79.7	30-120			
Chrysene	0.0285	0.00500	"	0.0333		85.4	30-120			
Dibenz (a,h) anthracene	0.0246	0.00500	"	0.0333		73.7	30-120			
Fluoranthene	0.0271	0.00500	"	0.0333		81.4	30-120			
Fluorene	0.0301	0.00500	"	0.0333		90.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0249	0.00500	"	0.0333		74.6	30-120			
Pyrene	0.0294	0.00500	"	0.0333		88.1	35-142			
1-Methylnaphthalene	0.0238	0.00500	"	0.0333		71.4	35-142			
2-Methylnaphthalene	0.0252	0.00500	"	0.0333		75.7	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0219		"	0.0333		65.7	40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.8	40-150			

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Broomfield CO, 80020

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0170 - EPA 5030 Soil MS

Matrix Spike (BHF0170-MS1)	Source: 2406083-01			Prepared & Analyzed: 06/07/24								
Acenaphthene	0.0166	0.00500	mg/kg	0.0333	ND	49.9	31-137					
Anthracene	0.0177	0.00500	"	0.0333	ND	53.2	30-120					
Benzo (a) anthracene	0.0199	0.00500	"	0.0333	ND	59.6	30-120					
Benzo (a) pyrene	0.0173	0.00500	"	0.0333	ND	51.8	30-120					
Benzo (b) fluoranthene	0.0180	0.00500	"	0.0333	ND	54.0	30-120					
Benzo (k) fluoranthene	0.0177	0.00500	"	0.0333	ND	53.1	30-120					
Chrysene	0.0196	0.00500	"	0.0333	ND	58.8	30-120					
Dibenz (a,h) anthracene	0.0166	0.00500	"	0.0333	ND	49.8	30-120					
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.8	30-120					
Fluorene	0.0202	0.00500	"	0.0333	ND	60.7	30-120					
Indeno (1,2,3-cd) pyrene	0.0159	0.00500	"	0.0333	ND	47.6	30-120					
Pyrene	0.0207	0.00500	"	0.0333	ND	62.2	35-142					
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130					
2-Methylnaphthalene	0.0180	0.00500	"	0.0333	ND	53.9	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0161</i>		<i>"</i>	<i>0.0333</i>		<i>48.4</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0189</i>		<i>"</i>	<i>0.0333</i>		<i>56.8</i>	<i>40-150</i>					

Matrix Spike Dup (BHF0170-MSD1)	Source: 2406083-01			Prepared & Analyzed: 06/07/24								
Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.2	31-137	29.5	30			
Anthracene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	22.8	30			
Benzo (a) anthracene	0.0248	0.00500	"	0.0333	ND	74.3	30-120	22.0	30			
Benzo (a) pyrene	0.0221	0.00500	"	0.0333	ND	66.3	30-120	24.4	30			
Benzo (b) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.4	30-120	38.2	30			QR-02
Benzo (k) fluoranthene	0.0244	0.00500	"	0.0333	ND	73.1	30-120	31.7	30			QR-02
Chrysene	0.0250	0.00500	"	0.0333	ND	74.9	30-120	24.0	30			
Dibenz (a,h) anthracene	0.0178	0.00500	"	0.0333	ND	53.4	30-120	6.88	30			
Fluoranthene	0.0227	0.00500	"	0.0333	ND	68.2	30-120	21.8	30			
Fluorene	0.0255	0.00500	"	0.0333	ND	76.5	30-120	22.9	30			
Indeno (1,2,3-cd) pyrene	0.0171	0.00500	"	0.0333	ND	51.3	30-120	7.52	30			
Pyrene	0.0257	0.00500	"	0.0333	ND	77.0	35-142	21.4	30			
1-Methylnaphthalene	0.0262	0.00500	"	0.0333	ND	78.5	15-130	40.2	50			
2-Methylnaphthalene	0.0247	0.00500	"	0.0333	ND	74.1	15-130	31.6	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0249</i>		<i>"</i>	<i>0.0333</i>		<i>74.8</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0235</i>		<i>"</i>	<i>0.0333</i>		<i>70.4</i>	<i>40-150</i>					

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

Project: Noble - Guttersen State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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

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

Batch BHF0177 - EPA 3050B

Blank (BHF0177-BLK1)				Prepared: 06/07/24 Analyzed: 06/14/24						
Boron	ND	2.00	mg/L							
LCS (BHF0177-BS1)				Prepared: 06/07/24 Analyzed: 06/14/24						
Boron	5.16	2.00	mg/L	5.00		103	80-120			
Duplicate (BHF0177-DUP1)				Source: 2406083-01 Prepared: 06/07/24 Analyzed: 06/14/24						
Boron	0.153	2.00	mg/L		0.176			13.6	20	
Matrix Spike (BHF0177-MS1)				Source: 2406083-01 Prepared: 06/07/24 Analyzed: 06/14/24						
Boron	5.54	2.00	mg/L	5.02	0.176	107	75-125			
Matrix Spike Dup (BHF0177-MSD1)				Source: 2406083-01 Prepared: 06/07/24 Analyzed: 06/14/24						
Boron	5.53	2.00	mg/L	5.02	0.176	107	75-125	0.217	25	

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0287 - EPA 3050B

Blank (BHF0287-BLK1)

Prepared: 06/11/24 Analyzed: 06/12/24

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

LCS (BHF0287-BS1)

Prepared: 06/11/24 Analyzed: 06/12/24

Arsenic	38.8	0.200	mg/kg wet	40.0	97.1	80-120					
Barium	39.1	0.400	"	40.0	97.8	80-120					
Cadmium	1.92	0.200	"	2.00	95.8	80-120					
Copper	39.8	0.400	"	40.0	99.6	80-120					
Lead	18.9	0.200	"	20.0	94.7	80-120					
Nickel	38.7	0.400	"	40.0	96.9	80-120					
Silver	1.92	0.0200	"	2.00	96.2	80-120					
Zinc	38.3	0.400	"	40.0	95.7	80-120					
Selenium	3.78	0.260	"	4.00	94.6	80-120					

Duplicate (BHF0287-DUP1)

Source: 2406075-03

Prepared: 06/11/24 Analyzed: 06/12/24

Arsenic	5.97	0.200	mg/kg dry	5.69	4.89	20					
Barium	114	0.400	"	123	7.39	20					
Cadmium	4.14	0.200	"	0.513	156	20					QR-04
Copper	9.83	0.400	"	10.0	1.93	20					
Lead	8.66	0.200	"	7.74	11.3	20					
Nickel	13.0	0.400	"	13.4	3.14	20					
Silver	0.0449	0.0200	"	0.0488	8.42	20					
Zinc	409	0.400	"	41.1	163	20					QR-04
Selenium	1.19	0.260	"	0.331	113	20					QR-01

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0287 - EPA 3050B

Matrix Spike (BHF0287-MS1)

Source: 2406075-03

Prepared: 06/11/24 Analyzed: 06/12/24

Arsenic	51.7	0.200	mg/kg dry	47.1	5.69	97.8	75-125			
Barium	159	0.400	"	47.1	123	77.4	75-125			
Cadmium	2.81	0.200	"	2.35	0.513	97.5	75-125			
Copper	54.1	0.400	"	47.1	10.0	93.7	75-125			
Lead	28.0	0.200	"	23.5	7.74	85.9	75-125			
Nickel	58.1	0.400	"	47.1	13.4	94.9	75-125			
Silver	2.23	0.0200	"	2.35	0.0488	92.6	75-125			
Zinc	86.6	0.400	"	47.1	41.1	96.7	75-125			
Selenium	5.01	0.260	"	4.71	0.331	99.5	75-125			

Matrix Spike Dup (BHF0287-MSD1)

Source: 2406075-03

Prepared: 06/11/24 Analyzed: 06/12/24

Arsenic	52.3	0.200	mg/kg dry	47.8	5.69	97.4	75-125	1.06	25
Barium	164	0.400	"	47.8	123	86.1	75-125	2.92	25
Cadmium	2.95	0.200	"	2.39	0.513	102	75-125	4.82	25
Copper	54.5	0.400	"	47.8	10.0	93.1	75-125	0.719	25
Lead	28.6	0.200	"	23.9	7.74	87.4	75-125	2.32	25
Nickel	58.7	0.400	"	47.8	13.4	94.6	75-125	0.949	25
Silver	2.26	0.0200	"	2.39	0.0488	92.3	75-125	1.12	25
Zinc	99.6	0.400	"	47.8	41.1	123	75-125	14.0	25
Selenium	5.09	0.260	"	4.78	0.331	99.6	75-125	1.53	25

Post Spike (BHF0287-PS1)

Source: 2406075-03

Prepared: 06/11/24 Analyzed: 06/13/24

Arsenic	107		ug/l	100	12.8	94.5	75-125			
Barium	341		"	100	276	64.5	75-125			QM-01
Cadmium	6.06		"	5.00	1.16	98.1	75-125			
Copper	112		"	100	22.6	89.1	75-125			
Lead	61.9		"	50.0	17.4	89.0	75-125			
Nickel	118		"	100	30.3	87.9	75-125			
Silver	4.98		"	5.00	0.110	97.4	75-125			
Zinc	175		"	100	92.5	82.8	75-125			
Selenium	10.6		"	10.0	0.745	98.9	75-125			

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

Project: Noble - Gutterson State CC20-04 FL
Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0282 - 3060A Mod

Blank (BHF0282-BLK1)

Prepared & Analyzed: 06/11/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHF0282-BS1)

Prepared & Analyzed: 06/11/24

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 102 80-120

Duplicate (BHF0282-DUP1)

Source: 2406083-01

Prepared & Analyzed: 06/11/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHF0282-MS1)

Source: 2406083-01

Prepared & Analyzed: 06/11/24

Chromium, Hexavalent 26.3 0.30 mg/kg dry 25.7 ND 102 75-125

Matrix Spike Dup (BHF0282-MSD1)

Source: 2406083-01

Prepared & Analyzed: 06/11/24

Chromium, Hexavalent 27.1 0.30 mg/kg dry 26.7 ND 101 75-125 3.14 20

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Gutterson State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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

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

Batch BHF0268 - General Preparation

Blank (BHF0268-BLK1)

Prepared: 06/10/24 Analyzed: 06/14/24

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

LCS (BHF0268-BS1)

Prepared: 06/10/24 Analyzed: 06/14/24

Calcium	5.56	0.0500	mg/L wet	5.00	111	70-130
Magnesium	5.45	0.0500	"	5.00	109	70-130
Sodium	5.28	0.0500	"	5.00	106	70-130

Summit Scientific

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

Project: Noble - Gutterson State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0285 - General Preparation

Duplicate (BHF0285-DUP1)		Source: 2406087-01			Prepared & Analyzed: 06/11/24			
% Solids	94.8		%		95.1		0.316	20

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0269 - General Preparation

Blank (BHF0269-BLK1)

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHF0269-BS1)

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHF0269-DUP1)

Source: 2406081-01

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) 0.0702 0.0100 mmhos/cm 0.0708 0.780 20

Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

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 BHF0270 - General Preparation

LCS (BHF0270-BS1)

Prepared: 06/10/24 Analyzed: 06/11/24

pH	9.19	pH Units	9.18	100	95-105
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Duplicate (BHF0270-DUP1)

Source: 2406081-01

Prepared: 06/10/24 Analyzed: 06/11/24

pH	8.12	pH Units	8.18	0.736	20
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Summit Scientific

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

Project: Noble - Guttersen State CC20-04 FL

Project Number: UWRWE-A3676-ABN
Project Manager: Jacob Whritenour

Reported:
06/24/24 08:14

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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