

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 04, 2024

AJ Engelhardt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - SH Farms C17-6

Work Order #2410466

Enclosed are the results of analyses for samples received by Summit Scientific on 10/24/24 18:45. 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 - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-04@3'	2410466-01	Soil	10/24/24 11:06	10/24/24 18:45
FL01-06@3'	2410466-02	Soil	10/24/24 12:23	10/24/24 18:45
FL01-07@3'	2410466-03	Soil	10/24/24 12:28	10/24/24 18:45

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.*

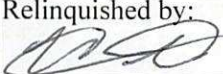

# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2410466	

<b>Send Data To:</b>		<b>Send Invoice To:</b>
Client: Chevron/Tasman	Project Manager: AJ Engelhardt	Company: Chevron
Address: 6855 W. 119th Avenue	E-Mail: tas-chevron-3@tasman-geo.com	Project Name/Location: SH Farms C17.6
City/State/Zip: Broomfield, CO 80020		AFE#:
Phone: 978-857-4408	Project Name: SH Farms C17.6	PO/Billing Codes:
Sampler Name: Matthew Wenzel	Project Number:	Contact: Miguel Barron

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested					Special Instructions
					HCl	HNO3	None	Other	Water	Soil			915-VOC	915-PAH	915-TPH	pH, EC, SAR	Boron	
1	FL01-04 @ 3'	10-24-24	1106	2			X			X			X	X	X	X	X	
2	FL01-06 @ 3'	1	1223	1			1			1			1	1	1	1	1	
3	FL01-07 @ 3'	1	1228	1			1			1			1	1	1	1	1	
4																		
5																		
6																		
7																		
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9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: 	Date/Time: 10-24-24 1515	Received by: Tasman Louckor	Date/Time: 10-24-24 1515	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tomman Louckor	Date/Time: 10/24/24 1845	Received by: 	Date/Time: 10/24/24 1845	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 7.1	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 24104686

Client: Chevron/Tasman Client Project ID: SH Farms C17-6

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

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

Temp (°C) 7.1 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>MDGE</u>
If custody seals are present, are they intact? <sup>(1)</sup>	<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? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<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)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

AS  
Custodian Printed Name

10/24/24  
Date/Time



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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-04@3'**  
**2410466-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ1262	10/29/24	10/31/24	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: **10/24/24 11:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0423	106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.5 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ1265	10/29/24	10/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.6	92.8 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-04@3'**  
**2410466-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0521	0.00500	mg/kg	1	BHJ1082	10/25/24	10/29/24	EPA 8270D SIM	
Anthracene	0.0518	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0790	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0500	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0889	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0337	0.00500	"	"	"	"	"	"	
Chrysene	0.0640	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.209	0.00500	"	"	"	"	"	"	
Fluorene	0.0578	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.103	0.00500	"	"	"	"	"	"	
Pyrene	0.395	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0112	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0218	65.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0223	67.0 %	40-150		"	"	"	"	

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

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1411	10/31/24	11/02/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.17	0.200	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-04@3'**  
**2410466-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	68.1	0.400	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	
Cadmium	0.331	0.200	"	"	"	"	"	"	
Copper	56.7	0.400	"	"	"	"	"	"	
Lead	13.0	0.200	"	"	"	"	"	"	
Nickel	5.71	0.400	"	"	"	"	"	"	
Silver	0.0336	0.0200	"	"	"	"	"	"	
Zinc	92.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 10/24/24 11:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0091	11/03/24	11/03/24	EPA 7196A	

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

Date Sampled: 10/24/24 11:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	75.3	0.0500	mg/L dry	1	BHJ1303	10/29/24	10/31/24	EPA 6020B	
Magnesium	54.8	0.0500	"	"	"	"	"	"	
Sodium	164	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 10/24/24 11:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.51	0.00100	units	1	BHK0034	11/01/24	11/01/24	Calculation	

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

Date Sampled: 10/24/24 11:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.8		%	1	BHJ1373	10/30/24	10/31/24	Calculation	

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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-04@3'**  
**2410466-01 (Soil)**

**Summit Scientific**

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

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

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.42	0.0100	mmhos/cm	1	BHJ1305	10/29/24	10/30/24	EPA 120.1	

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

Date Sampled: **10/24/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.59		pH Units	1	BHJ1304	10/29/24	10/30/24	EPA 9045D	

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Broomfield CO, 80020

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-06@3'**  
**2410466-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ1262	10/29/24	10/31/24	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		"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.0044</b>	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0434	109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	96.9 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ1265	10/29/24	10/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.0	87.8 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-06@3'**  
**2410466-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0463	0.00500	mg/kg	1	BHJ1082	10/25/24	10/29/24	EPA 8270D SIM	
Anthracene	0.0621	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0744	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0480	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.101	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0351	0.00500	"	"	"	"	"	"	
Chrysene	0.0648	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.200	0.00500	"	"	"	"	"	"	
Fluorene	0.0528	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0874	0.00500	"	"	"	"	"	"	
Pyrene	0.339	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0101	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0223	66.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.2 %	40-150		"	"	"	"	

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

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1411	10/31/24	11/02/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.90	0.200	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-06@3'**  
**2410466-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	54.9	0.400	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.48	0.400	"	"	"	"	"	"	
Lead	5.95	0.200	"	"	"	"	"	"	
Nickel	4.49	0.400	"	"	"	"	"	"	
Silver	0.0274	0.0200	"	"	"	"	"	"	
Zinc	17.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 10/24/24 12:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0091	11/03/24	11/03/24	EPA 7196A	

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

Date Sampled: 10/24/24 12:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.4	0.0500	mg/L dry	1	BHJ1303	10/29/24	10/31/24	EPA 6020B	
Magnesium	18.6	0.0500	"	"	"	"	"	"	
Sodium	101	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 10/24/24 12:23

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.17	0.00100	units	1	BHK0034	11/01/24	11/01/24	Calculation	

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

Date Sampled: 10/24/24 12:23

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 - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-06@3'**  
**2410466-02 (Soil)**

**Summit Scientific**

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

% Solids	97.2	%	1	BHJ1373	10/30/24	10/31/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.24	0.0100	mmhos/cm	1	BHJ1305	10/29/24	10/30/24	EPA 120.1	

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

Date Sampled: **10/24/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.27		pH Units	1	BHJ1304	10/29/24	10/30/24	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-07@3'**  
**2410466-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ1262	10/29/24	10/31/24	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: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0436	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ1265	10/29/24	10/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.8	86.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-07@3'**  
**2410466-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0351	0.00500	mg/kg	1	BHJ1082	10/25/24	10/29/24	EPA 8270D SIM	
Anthracene	0.115	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.403	0.0500	"	10	"	"	10/29/24	"	
Benzo (a) pyrene	0.305	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.431	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.220	0.00500	"	1	"	"	10/29/24	"	E
Chrysene	0.413	0.0500	"	10	"	"	10/29/24	"	
Dibenz (a,h) anthracene	ND	0.00500	"	1	"	"	10/29/24	"	
Fluoranthene	0.774	0.0500	"	10	"	"	10/29/24	"	
Fluorene	0.0405	0.00500	"	1	"	"	10/29/24	"	
Indeno (1,2,3-cd) pyrene	0.286	0.0500	"	10	"	"	10/29/24	"	
Pyrene	0.841	0.0500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	1	"	"	10/29/24	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	49.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0164	49.3 %	40-150		"	"	"	"	

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

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1411	10/31/24	11/02/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.55	0.200	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	

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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-07@3'**  
**2410466-03 (Soil)**

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**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	81.4	0.400	mg/kg dry	1	BHJ1342	10/30/24	10/31/24	EPA 6020B	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.40	0.400	"	"	"	"	"	"	
Lead	4.95	0.200	"	"	"	"	"	"	
Nickel	4.38	0.400	"	"	"	"	"	"	
Silver	0.0242	0.0200	"	"	"	"	"	"	
Zinc	18.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 10/24/24 12:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0091	11/03/24	11/03/24	EPA 7196A	

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

Date Sampled: 10/24/24 12:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	36.6	0.0500	mg/L dry	1	BHJ1303	10/29/24	10/31/24	EPA 6020B	
Magnesium	9.78	0.0500	"	"	"	"	"	"	
Sodium	32.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 10/24/24 12:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.23	0.00100	units	1	BHK0034	11/01/24	11/01/24	Calculation	

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

Date Sampled: 10/24/24 12:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.  
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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**FL01-07@3'**  
**2410466-03 (Soil)**

**Summit Scientific**

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

% Solids	94.2	%	1	BHJ1373	10/30/24	10/31/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.833	0.0100	mmhos/cm	1	BHJ1305	10/29/24	10/30/24	EPA 120.1	

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

Date Sampled: **10/24/24 12:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BHJ1304	10/29/24	10/30/24	EPA 9045D	

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6855 W. 119th Ave.  
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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

### 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 BHJ1262 - EPA 5030 Soil MS

##### Blank (BHJ1262-BLK1)

Prepared: 10/29/24 Analyzed: 10/30/24

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	0.0423		"	0.0400		106	50-150				
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	50-150				

##### LCS (BHJ1262-BS1)

Prepared: 10/29/24 Analyzed: 10/30/24

Benzene	0.0990	0.0020	mg/kg	0.100		99.0	70-130				
Toluene	0.108	0.0050	"	0.100		108	70-130				
Ethylbenzene	0.0979	0.0050	"	0.100		97.9	70-130				
m,p-Xylene	0.202	0.010	"	0.200		101	70-130				
o-Xylene	0.0979	0.0050	"	0.100		97.9	70-130				
1,2,4-Trimethylbenzene	0.0974	0.0050	"	0.100		97.4	70-130				
1,3,5-Trimethylbenzene	0.0940	0.0050	"	0.100		94.0	70-130				
Naphthalene	0.104	0.0038	"	0.100		104	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		102	50-150				
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	50-150				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150				

##### Matrix Spike (BHJ1262-MS1)

Source: 2410459-01

Prepared: 10/29/24 Analyzed: 10/30/24

Benzene	0.0971	0.0020	mg/kg	0.100	ND	97.1	70-130				
Toluene	0.0965	0.0050	"	0.100	ND	96.5	70-130				
Ethylbenzene	0.0943	0.0050	"	0.100	ND	94.3	70-130				
m,p-Xylene	0.191	0.010	"	0.200	ND	95.4	70-130				
o-Xylene	0.0945	0.0050	"	0.100	ND	94.5	70-130				
1,2,4-Trimethylbenzene	0.0906	0.0050	"	0.100	ND	90.6	70-130				
1,3,5-Trimethylbenzene	0.0900	0.0050	"	0.100	ND	90.0	70-130				
Naphthalene	0.0958	0.0038	"	0.100	ND	95.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	50-150				
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	50-150				
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.8	50-150				

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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1262 - EPA 5030 Soil MS**

Matrix Spike Dup (BHJ1262-MSD1)	Source: 2410459-01			Prepared: 10/29/24 Analyzed: 10/30/24						
Benzene	0.0947	0.0020	mg/kg	0.100	ND	94.7	70-130	2.53	30	
Toluene	0.0936	0.0050	"	0.100	ND	93.6	70-130	3.06	30	
Ethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130	2.97	30	
m,p-Xylene	0.182	0.010	"	0.200	ND	91.1	70-130	4.61	30	
o-Xylene	0.0909	0.0050	"	0.100	ND	90.9	70-130	3.88	30	
1,2,4-Trimethylbenzene	0.0882	0.0050	"	0.100	ND	88.2	70-130	2.65	30	
1,3,5-Trimethylbenzene	0.0868	0.0050	"	0.100	ND	86.8	70-130	3.63	30	
Naphthalene	0.0935	0.0038	"	0.100	ND	93.5	70-130	2.44	30	
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150			

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Broomfield CO, 80020

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

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

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

**Batch BHJ1265 - EPA 3550A**

**Blank (BHJ1265-BLK1)**

Prepared: 10/29/24 Analyzed: 10/30/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	13.2		"	12.5		106	30-150			

**LCS (BHJ1265-BS1)**

Prepared: 10/29/24 Analyzed: 10/30/24

C10-C28 (DRO)	401	50	mg/kg	500		80.2	70-130			
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5		98.3	30-150			

**Matrix Spike (BHJ1265-MS1)**

Source: 2410459-01

Prepared: 10/29/24 Analyzed: 10/30/24

C10-C28 (DRO)	401	50	mg/kg	500	ND	80.2	70-130			
Surrogate: <i>o</i> -Terphenyl	10.9		"	12.5		87.0	30-150			

**Matrix Spike Dup (BHJ1265-MSD1)**

Source: 2410459-01

Prepared: 10/29/24 Analyzed: 10/30/24

C10-C28 (DRO)	450	50	mg/kg	500	ND	89.9	70-130	11.4	20	
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.6	30-150			

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Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1082 - EPA 5030 Soil MS**

**Blank (BHJ1082-BLK1)**

Prepared: 10/25/24 Analyzed: 10/28/24

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	0.0234		"	0.0333		70.1	40-150			
Surrogate: Fluoranthene-d10	0.0282		"	0.0333		84.6	40-150			

**LCS (BHJ1082-BS1)**

Prepared: 10/25/24 Analyzed: 10/28/24

Acenaphthene	0.0247	0.00500	mg/kg	0.0333		74.2	31-137			
Anthracene	0.0251	0.00500	"	0.0333		75.4	30-120			
Benzo (a) anthracene	0.0251	0.00500	"	0.0333		75.2	30-120			
Benzo (a) pyrene	0.0229	0.00500	"	0.0333		68.7	30-120			
Benzo (b) fluoranthene	0.0223	0.00500	"	0.0333		66.9	30-120			
Benzo (k) fluoranthene	0.0234	0.00500	"	0.0333		70.1	30-120			
Chrysene	0.0237	0.00500	"	0.0333		71.2	30-120			
Dibenz (a,h) anthracene	0.0314	0.00500	"	0.0333		94.2	30-120			
Fluoranthene	0.0251	0.00500	"	0.0333		75.2	30-120			
Fluorene	0.0249	0.00500	"	0.0333		74.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0372	0.00500	"	0.0333		112	30-120			
Pyrene	0.0273	0.00500	"	0.0333		81.8	35-142			
1-Methylnaphthalene	0.0225	0.00500	"	0.0333		67.4	35-142			
2-Methylnaphthalene	0.0252	0.00500	"	0.0333		75.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0262		"	0.0333		78.8	40-150			
Surrogate: Fluoranthene-d10	0.0256		"	0.0333		76.9	40-150			

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Broomfield CO, 80020

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1082 - EPA 5030 Soil MS**

<b>Matrix Spike (BHJ1082-MS1)</b>	<b>Source: 2410428-02</b>			<b>Prepared: 10/25/24 Analyzed: 10/28/24</b>						
Acenaphthene	0.0194	0.00500	mg/kg	0.0333	ND	58.1	31-137			
Anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Benzo (a) anthracene	0.0199	0.00500	"	0.0333	ND	59.8	30-120			
Benzo (a) pyrene	0.0187	0.00500	"	0.0333	ND	56.0	30-120			
Benzo (b) fluoranthene	0.0223	0.00500	"	0.0333	ND	67.0	30-120			
Benzo (k) fluoranthene	0.0219	0.00500	"	0.0333	ND	65.7	30-120			
Chrysene	0.0174	0.00500	"	0.0333	ND	52.1	30-120			
Dibenz (a,h) anthracene	0.0262	0.00500	"	0.0333	ND	78.6	30-120			
Fluoranthene	0.0201	0.00500	"	0.0333	ND	60.2	30-120			
Fluorene	0.0201	0.00500	"	0.0333	ND	60.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0238	0.00500	"	0.0333	ND	71.4	30-120			
Pyrene	0.0208	0.00500	"	0.0333	ND	62.3	35-142			
1-Methylnaphthalene	0.0154	0.00500	"	0.0333	ND	46.2	15-130			
2-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.5	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0179</i>		<i>"</i>	<i>0.0333</i>		<i>53.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0204</i>		<i>"</i>	<i>0.0333</i>		<i>61.3</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BHJ1082-MSD1)</b>	<b>Source: 2410428-02</b>			<b>Prepared: 10/25/24 Analyzed: 10/28/24</b>						
Acenaphthene	0.0163	0.00500	mg/kg	0.0333	ND	49.0	31-137	17.0	30	
Anthracene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	5.84	30	
Benzo (a) anthracene	0.0178	0.00500	"	0.0333	ND	53.5	30-120	11.2	30	
Benzo (a) pyrene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	17.9	30	
Benzo (b) fluoranthene	0.0179	0.00500	"	0.0333	ND	53.6	30-120	22.2	30	
Benzo (k) fluoranthene	0.0168	0.00500	"	0.0333	ND	50.3	30-120	26.5	30	
Chrysene	0.0151	0.00500	"	0.0333	ND	45.4	30-120	13.9	30	
Dibenz (a,h) anthracene	0.0288	0.00500	"	0.0333	ND	86.3	30-120	9.23	30	
Fluoranthene	0.0168	0.00500	"	0.0333	ND	50.3	30-120	17.9	30	
Fluorene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	16.7	30	
Indeno (1,2,3-cd) pyrene	0.0272	0.00500	"	0.0333	ND	81.5	30-120	13.3	30	
Pyrene	0.0186	0.00500	"	0.0333	ND	55.9	35-142	10.9	30	
1-Methylnaphthalene	0.0136	0.00500	"	0.0333	ND	40.8	15-130	12.3	50	
2-Methylnaphthalene	0.0151	0.00500	"	0.0333	ND	45.3	15-130	12.7	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0154</i>		<i>"</i>	<i>0.0333</i>		<i>46.2</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0173</i>		<i>"</i>	<i>0.0333</i>		<i>51.8</i>	<i>40-150</i>			

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1411 - EPA 3050B**

**Blank (BHJ1411-BLK1)**

Prepared: 10/31/24 Analyzed: 11/02/24

Boron ND 2.00 mg/L

**LCS (BHJ1411-BS1)**

Prepared: 10/31/24 Analyzed: 11/02/24

Boron 5.08 2.00 mg/L 5.00 102 80-120

**Duplicate (BHJ1411-DUP1)**

**Source: 2410465-21**

Prepared: 10/31/24 Analyzed: 11/02/24

Boron 0.430 2.00 mg/L 0.390 9.66 20

**Matrix Spike (BHJ1411-MS1)**

**Source: 2410465-21**

Prepared: 10/31/24 Analyzed: 11/02/24

Boron 5.36 2.00 mg/L 5.03 0.390 98.9 75-125

**Matrix Spike Dup (BHJ1411-MSD1)**

**Source: 2410465-21**

Prepared: 10/31/24 Analyzed: 11/02/24

Boron 5.37 2.00 mg/L 5.03 0.390 99.0 75-125 0.120 25

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1342 - EPA 3050B**

**Blank (BHJ1342-BLK1)**

Prepared: 10/30/24 Analyzed: 10/31/24

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 (BHJ1342-BS1)**

Prepared: 10/30/24 Analyzed: 10/31/24

Arsenic	39.7	0.200	mg/kg wet	41.3	96.2	80-120
Barium	40.4	0.400	"	41.3	97.8	80-120
Cadmium	2.02	0.200	"	2.07	97.7	80-120
Copper	41.4	0.400	"	41.3	100	80-120
Lead	20.0	0.200	"	20.7	96.7	80-120
Nickel	41.5	0.400	"	41.3	100	80-120
Silver	2.03	0.0200	"	2.07	98.2	80-120
Zinc	41.5	0.400	"	41.3	100	80-120
Selenium	4.04	0.260	"	4.13	97.8	80-120

**Duplicate (BHJ1342-DUP1)**

Source: 2410424-01

Prepared: 10/30/24 Analyzed: 10/31/24

Arsenic	2.20	0.200	mg/kg dry	1.56	33.9	20	QR-04
Barium	61.0	0.400	"	44.6	31.0	20	QR-04
Cadmium	0.128	0.200	"	0.0840	41.5	20	QR-01
Copper	4.65	0.400	"	5.06	8.26	20	
Lead	9.06	0.200	"	5.92	42.0	20	QR-04
Nickel	5.46	0.400	"	3.95	32.1	20	QR-04
Silver	0.0296	0.0200	"	0.0254	15.1	20	
Zinc	17.6	0.400	"	12.5	33.6	20	QR-04
Selenium	ND	0.260	"	ND		20	

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1342 - EPA 3050B**

**Matrix Spike (BHJ1342-MS1)**

Source: 2410424-01

Prepared: 10/30/24 Analyzed: 10/31/24

Arsenic	47.1	0.200	mg/kg dry	46.9	1.56	97.0	75-125			
Barium	105	0.400	"	46.9	44.6	128	75-125			QM-05
Cadmium	2.44	0.200	"	2.35	0.0840	100	75-125			
Copper	38.1	0.400	"	46.9	5.06	70.4	75-125			QM-05
Lead	30.0	0.200	"	23.5	5.92	103	75-125			
Nickel	38.8	0.400	"	46.9	3.95	74.3	75-125			QM-05
Silver	2.28	0.0200	"	2.35	0.0254	96.0	75-125			
Zinc	52.0	0.400	"	46.9	12.5	84.2	75-125			
Selenium	4.37	0.260	"	4.69	ND	93.2	75-125			

**Matrix Spike Dup (BHJ1342-MSD1)**

Source: 2410424-01

Prepared: 10/30/24 Analyzed: 10/31/24

Arsenic	49.1	0.200	mg/kg dry	48.1	1.56	98.8	75-125	4.12	25	
Barium	121	0.400	"	48.1	44.6	160	75-125	14.7	25	QM-05
Cadmium	2.52	0.200	"	2.40	0.0840	101	75-125	3.21	25	
Copper	37.7	0.400	"	48.1	5.06	67.9	75-125	1.05	25	QM-05
Lead	34.3	0.200	"	24.0	5.92	118	75-125	13.3	25	
Nickel	37.8	0.400	"	48.1	3.95	70.5	75-125	2.60	25	QM-05
Silver	2.32	0.0200	"	2.40	0.0254	95.4	75-125	1.81	25	
Zinc	56.9	0.400	"	48.1	12.5	92.3	75-125	8.95	25	
Selenium	4.31	0.260	"	4.81	ND	89.6	75-125	1.43	25	

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHK0091 - 3060A Mod**

**Blank (BHK0091-BLK1)**

Prepared & Analyzed: 11/03/24

Chromium, Hexavalent      ND      0.30    mg/kg wet

**LCS (BHK0091-BS1)**

Prepared & Analyzed: 11/03/24

Chromium, Hexavalent      26.7      0.30    mg/kg wet      25.0      107      80-120

**Duplicate (BHK0091-DUP1)**

**Source: 2410428-01**

Prepared & Analyzed: 11/03/24

Chromium, Hexavalent      ND      0.30    mg/kg dry      ND      20

**Matrix Spike (BHK0091-MS1)**

**Source: 2410428-01**

Prepared & Analyzed: 11/03/24

Chromium, Hexavalent      29.2      0.30    mg/kg dry      30.3      ND      96.6      75-125

**Matrix Spike Dup (BHK0091-MSD1)**

**Source: 2410428-01**

Prepared & Analyzed: 11/03/24

Chromium, Hexavalent      28.8      0.30    mg/kg dry      30.3      ND      95.0      75-125      1.67      20

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1303 - General Preparation**

**Blank (BHJ1303-BLK1)**

Prepared: 10/29/24 Analyzed: 10/31/24

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

**LCS (BHJ1303-BS1)**

Prepared: 10/29/24 Analyzed: 10/31/24

Calcium	5.04	0.0500	mg/L wet	5.00	101	70-130				
Magnesium	5.42	0.0500	"	5.00	108	70-130				
Sodium	5.26	0.0500	"	5.00	105	70-130				

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1373 - General Preparation**

Duplicate (BHJ1373-DUP1)	Source: 2410464-01			Prepared: 10/30/24 Analyzed: 10/31/24	
% Solids	85.8	%		85.7	0.127 20

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

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

**Summit Scientific**

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

**Batch BHJ1305 - General Preparation**

**Blank (BHJ1305-BLK1)**

Prepared: 10/29/24 Analyzed: 10/30/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHJ1305-BS1)**

Prepared: 10/29/24 Analyzed: 10/30/24

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

**Duplicate (BHJ1305-DUP1)**

**Source: 2410406-01**

Prepared: 10/29/24 Analyzed: 10/30/24

Specific Conductance (EC) 0.206 0.0100 mmhos/cm 0.206 0.0972 20

Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

**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 BHJ1304 - General Preparation**

**LCS (BHJ1304-BS1)**

Prepared: 10/29/24 Analyzed: 10/30/24

pH	9.18	pH Units	9.18	100	95-105
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**Duplicate (BHJ1304-DUP1)**

Source: 2410406-01

Prepared: 10/29/24 Analyzed: 10/30/24

pH	5.78	pH Units	5.72	1.04	20
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Summit Scientific

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

Project: Noble - SH Farms C17-6

Project Number: [none]  
Project Manager: AJ Engelhardt

**Reported:**  
11/04/24 12:03

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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