

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 02, 2024

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Reinick C-64N64W 9SENE Tank Battery

Work Order #2407302

Enclosed are the results of analyses for samples received by Summit Scientific on 07/23/24 17:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-DL@5'	2407302-01	Soil	07/23/24 12:44	07/23/24 17:47
SEP01-FL@5'	2407302-02	Soil	07/23/24 12:46	07/23/24 17:47
SEP02-DL@5'	2407302-03	Soil	07/23/24 12:48	07/23/24 17:47
SEP02-FL@5'	2407302-04	Soil	07/23/24 12:50	07/23/24 17:47
PWV01-W@2.5'	2407302-07	Soil	07/23/24 12:56	07/23/24 17:47
PWV01-B@5'	2407302-08	Soil	07/23/24 12:58	07/23/24 17:47
PWV02-W@2.5'	2407302-09	Soil	07/23/24 13:00	07/23/24 17:47
PWV02-B@5'	2407302-10	Soil	07/23/24 13:02	07/23/24 17:47
PWV03-E@2.5'	2407302-13	Soil	07/23/24 13:08	07/23/24 17:47
PWV03-B@5'	2407302-14	Soil	07/23/24 13:10	07/23/24 17:47
PWV04-S@2.5'	2407302-16	Soil	07/23/24 13:14	07/23/24 17:47
PWV04-B@5'	2407302-17	Soil	07/23/24 13:16	07/23/24 17:47
AST01@0-6"	2407302-19	Soil	07/23/24 13:20	07/23/24 17:47
AST02@0-6"	2407302-20	Soil	07/23/24 13:22	07/23/24 17:47
AST03@0-6"	2407302-21	Soil	07/23/24 13:24	07/23/24 17:47
AST04@0-6"	2407302-22	Soil	07/23/24 13:26	07/23/24 17:47
BKG01@0-6"	2407302-23	Soil	07/23/24 13:28	07/23/24 17:47
BKG01@1-2'	2407302-24	Soil	07/23/24 13:30	07/23/24 17:47
BKG01@2.5'	2407302-25	Soil	07/23/24 13:32	07/23/24 17:47
BKG01@5'	2407302-26	Soil	07/23/24 13:34	07/23/24 17:47

**Case Narrative**

Client requested PWV03-S@2.5' be renamed to PWV03-E@2.5' on 8/2/24.

This is a revision of the report originally sent on 7/30/24 at 09:14 MT.

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

Lab ID: 2407302.1  
Page 1 of 2

Send Data To:		Send Invoice To:	
Client: Noble/Tasman	Project Manager: Jake Whritenour	Company: noble	
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location:	
City/State/Zip: Broomfield/CO/ 80020		AFE#: UWRNF-A2811-ABN	
Phone: 810-923-0781	Project Name: Reinick C-604N (04W) 95ENE TARIN PATCH	PO/Billing Codes:	
Sampler Name: Shannon Walus	Project Number:	Contact: Miguel Barron SW White Mountain	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil			VOC-915	TPH-915	PAH-915	pH, EC, SAR	Boron-915	Metals-915	HOLD	
1	SEP01-DLWS'	07/23/24	1244	3			X						X	X	X	X	X	X		
2	SEP01-FLWS'		1246										X	X	X	X	X	X		
3	SEP02-DLWS'		1248										X	X	X	X	X	X		
4	SEP02-FLWS'		1250										X	X	X	X	X	X		
5	PWV01-N@2.5'		1252																X	
6	PWV01-E@2.5'		1254																X	
7	PWV01-W@2.5'		1256										X	X	X	X	X	X		
8	PWV01-B@5'		1258										X	X	X	X	X	X		
9	PWV02-W@2.5'		1300										X	X	X	X	X	X		
10	PWV02-B@5'		1302										X	X	X	X	X	X		
11	PWV02-E@2.5'		1304																X	
12	PWV03-W@2.5'		1306																X	
13	PWV03-S@2.5'		1308									X	X	X	X	X	X	X		
14	PWV03-B@5'		1310									X	X	X	X	X	X	X		
15	PWV04-W@2.5'		1312								SW								X	

Relinquished by: Shannon Walus	Date/Time: 7/23/24 1700	Received by: Tasman Lock Box	Date/Time: 7/23/24 1700	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lock Box	Date/Time: 7/23/24 1747	Received by: [Signature]	Date/Time: 7/23/24 1747	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb. <input checked="" type="checkbox"/>	
Temperature Upon Receipt: 17.3	Corrected Temperature: 0	IR gun #:		HNO3 lot #:		

Send Data To:		Send Invoice To:	
Client: Noble/Tasman	Project Manager: Jake Whritenour	Company: <u>noble</u>	
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location:	
City/State/Zip: Broomfield/CO/ 80020		AFE#: <u>UNRNE-A2811-ABN</u>	
Phone: 810-923-0781	Project Name: <u>Reinich C-64N64W GSENF</u>	PO/Billing Codes:	
Sampler Name: Shannon Walus	Project Number: <u>TAMMATHC11</u>	Contact: Miguel Barron <sup>sw</sup> Mike Montel	

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-915	Metals-915		HOLD	
1	PWV04-S @2.5'	7/23/24	1314	3			0			X			X	X	X	X	X	X			
2	PWV04-B @5'		1316	1									X	X	X	X	X	X			
3	PWV04-E @2.5'		1318	1															X		
4	AST01 @0-6'		1320	1									X	X	X	X	X	X			
5	AST02 @0-6"		1322	1																	
6	AST03 @0-6"		1324	1																	
7	AST04 @0-6"		1326	1																	
8	BWV01 @0-6"		1328	2																	
9	BWV01 @1-2'		1330	1																	
10	BWV01 @2.5'		1332	1																	
11	BWV01 @5'		1334	1																	
12																					
13																					
14																					
15																					

Relinquished by: <u>Shannon Walus</u>	Date/Time: <u>7/23/24 1700</u>	Received by: <u>Tasman Lock Box</u>	Date/Time: <u>7/23/24 1700</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman Lock Box</u>	Date/Time: <u>7/24 1747</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7/23/24 1747</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>17.3</u>	Corrected Temperature: <u>0</u>	IR gun #: <u>1</u>	HNO3 lot #: _____	Standard	<input checked="" type="checkbox"/> Field Turb.	

S<sub>2</sub>

2/2

S2 Work Order# 2407302

Sample Receipt Checklist

Client: Nobel Tasmann

Client Project ID: Penick C-64N (old) 9SENE  
(Tank Battery)

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

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

Temp (°C)  Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> 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"/>	CWJCE
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? <b>If yes, contact client and note in narrative.</b>	<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

7/23/24  
Date/Time



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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-DL@5'**  
**2407302-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0515	129 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	99.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.10	56.8 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-DL@5'**  
**2407302-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0155	46.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.5 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:44**

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 - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-DL@5'**  
**2407302-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.40	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	51.0	0.400	"	"	"	"	"	"	
Cadmium	0.688	0.200	"	"	"	"	"	"	
Copper	4.67	0.400	"	"	"	"	"	"	
Lead	8.51	0.200	"	"	"	"	"	"	
Nickel	4.30	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	16.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	54.3	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	13.9	0.0500	"	"	"	"	"	"	
Sodium	2.55	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0799	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-DL@5'**  
**2407302-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.5		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.194	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.85		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-FL@5'**  
**2407302-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0526	132 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	98.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.3 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.77	62.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-FL@5'**  
**2407302-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0152	45.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0185	55.4 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:46**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-FL@5'**  
**2407302-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.03	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B
Barium	51.2	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.88	0.400	"	"	"	"	"	"
Lead	5.69	0.200	"	"	"	"	"	"
Nickel	3.14	0.400	"	"	"	"	"	"
Silver	0.0229	0.0200	"	"	"	"	"	"
Zinc	15.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	98.5	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	23.1	0.0500	"	"	"	"	"	"	
Sodium	2.36	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0556	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP01-FL@5'**  
**2407302-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.7		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.176	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.66		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-DL@5'**  
**2407302-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0428	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0375	93.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.66	61.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-DL@5'**  
**2407302-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0155	46.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.9 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:48**

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 - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-DL@5'**  
**2407302-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.06	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	50.2	0.400	"	"	"	"	"	"	
Cadmium	0.406	0.200	"	"	"	"	"	"	
Copper	3.73	0.400	"	"	"	"	"	"	
Lead	6.33	0.200	"	"	"	"	"	"	
Nickel	3.21	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	17.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	70.9	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	18.2	0.0500	"	"	"	"	"	"	
Sodium	2.36	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0647	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-DL@5'**  
**2407302-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.4		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.184	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.58		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-FL@5'**  
**2407302-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0428	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0401	100 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.31	66.5 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-FL@5'**  
**2407302-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0140	42.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0174	52.3 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:50**

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-FL@5'**  
**2407302-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.37	0.179	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	54.8	0.357	"	"	"	"	"	"	
Cadmium	0.299	0.179	"	"	"	"	"	"	
Copper	4.01	0.357	"	"	"	"	"	"	
Lead	6.15	0.179	"	"	"	"	"	"	
Nickel	3.22	0.357	"	"	"	"	"	"	
Silver	0.0232	0.0179	"	"	"	"	"	"	
Zinc	18.0	0.357	"	"	"	"	"	"	
Selenium	ND	0.232	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	95.2	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	21.4	0.0500	"	"	"	"	"	"	
Sodium	1.10	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0265	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 12:50**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**SEP02-FL@5'**  
**2407302-04 (Soil)**

**Summit Scientific**

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

% Solids	94.0	%	1	BHG0678	07/24/24	07/24/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.136	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-W@2.5'**  
**2407302-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0485	121 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.00	56.0 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-W@2.5'**  
**2407302-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0158	47.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0157	47.1 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:56**

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 - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-W@2.5'**  
**2407302-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.06	0.180	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	67.0	0.360	"	"	"	"	"	"	
Cadmium	0.229	0.180	"	"	"	"	"	"	
Copper	4.27	0.360	"	"	"	"	"	"	
Lead	9.53	0.180	"	"	"	"	"	"	
Nickel	3.76	0.360	"	"	"	"	"	"	
Silver	0.0423	0.0180	"	"	"	"	"	"	
Zinc	43.4	0.360	"	"	"	"	"	"	
Selenium	ND	0.234	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	95.5	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	26.7	0.0500	"	"	"	"	"	"	
Sodium	22.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.532	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 12:56**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-W@2.5'**  
**2407302-07 (Soil)**

**Summit Scientific**

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

% Solids	91.8	%	1	BHG0678	07/24/24	07/24/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.227	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-B@5'**  
**2407302-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0446	111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0389	97.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0362	90.4 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.18	65.5 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-B@5'**  
**2407302-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0140	41.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.7 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 12:58**

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 - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-B@5'**  
**2407302-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.08	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	52.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.37	0.400	"	"	"	"	"	"	
Lead	7.07	0.200	"	"	"	"	"	"	
Nickel	3.15	0.400	"	"	"	"	"	"	
Silver	0.0292	0.0200	"	"	"	"	"	"	
Zinc	22.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	23.4	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	9.34	0.0500	"	"	"	"	"	"	
Sodium	36.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.59	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV01-B@5'**  
**2407302-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.9			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.431	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.04			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-W@2.5'**  
**2407302-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0482	120 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.3 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.30	66.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-W@2.5'**  
**2407302-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0143	42.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0176	52.7 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:00**

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-W@2.5'**  
**2407302-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.11	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	49.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.39	0.400	"	"	"	"	"	"	
Lead	6.56	0.200	"	"	"	"	"	"	
Nickel	3.12	0.400	"	"	"	"	"	"	
Silver	0.0241	0.0200	"	"	"	"	"	"	
Zinc	18.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	146	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	37.6	0.0500	"	"	"	"	"	"	
Sodium	28.2	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.538	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Summit Scientific

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Project Number: UWRWE-A2811-ABN  
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**Reported:**  
08/02/24 13:15

**PWV02-W@2.5'**  
**2407302-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.3			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.262	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.28			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-B@5'**  
**2407302-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0498	125 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.91	63.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-B@5'**  
**2407302-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/24/24	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: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0146	43.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0156	46.7 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-B@5'**  
**2407302-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.24	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B
Barium	52.6	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.59	0.400	"	"	"	"	"	"
Lead	8.38	0.200	"	"	"	"	"	"
Nickel	3.37	0.400	"	"	"	"	"	"
Silver	0.0282	0.0200	"	"	"	"	"	"
Zinc	21.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.2	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	13.5	0.0500	"	"	"	"	"	"	
Sodium	33.7	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.20	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV02-B@5'**  
**2407302-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.7			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.412	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.05			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-E@2.5'**  
**2407302-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0464	116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0391	97.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.04	56.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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**Reported:**  
08/02/24 13:15

**PWV03-E@2.5'**  
**2407302-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0169	50.8 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:08**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-E@2.5'**  
**2407302-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.71	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	38.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.19	0.400	"	"	"	"	"	"	
Lead	5.86	0.200	"	"	"	"	"	"	
Nickel	3.03	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	58.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	51.2	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	13.8	0.0500	"	"	"	"	"	"	
Sodium	31.3	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.00	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-E@2.5'**  
**2407302-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.6		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.721	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.64		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-B@5'**  
**2407302-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0421	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0401	100 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.64	61.1 %	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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-B@5'**  
**2407302-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0135	40.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.4 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:10**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-B@5'**  
**2407302-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.51	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	64.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.86	0.400	"	"	"	"	"	"	
Lead	8.60	0.200	"	"	"	"	"	"	
Nickel	3.61	0.400	"	"	"	"	"	"	
Silver	0.0297	0.0200	"	"	"	"	"	"	
Zinc	57.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	22.5	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	6.85	0.0500	"	"	"	"	"	"	
Sodium	11.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.521	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV03-B@5'**  
**2407302-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.7			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.359	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.21			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-S@2.5'**  
**2407302-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0544	136 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0429	107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.46	67.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-S@2.5'**  
**2407302-16 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0165	49.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:14**

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-S@2.5'**  
**2407302-16 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.96	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B
Barium	75.1	0.400	"	"	"	"	"	"
Cadmium	0.210	0.200	"	"	"	"	"	"
Copper	4.26	0.400	"	"	"	"	"	"
Lead	7.02	0.200	"	"	"	"	"	"
Nickel	4.43	0.400	"	"	"	"	"	"
Silver	0.0269	0.0200	"	"	"	"	"	"
Zinc	18.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.7	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	7.17	0.0500	"	"	"	"	"	"	
Sodium	35.7	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.49	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-S@2.5'**  
**2407302-16 (Soil)**

**Summit Scientific**

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

<b>% Solids</b>	<b>89.4</b>	%	1	BHG0678	07/24/24	07/24/24	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.602</b>	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.74</b>		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-B@5'**  
**2407302-17 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0466	117 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/29/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.18	57.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-B@5'**  
**2407302-17 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	49.0 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-B@5'**  
**2407302-17 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.01	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B
Barium	45.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.75	0.400	"	"	"	"	"	"
Lead	6.35	0.200	"	"	"	"	"	"
Nickel	3.17	0.400	"	"	"	"	"	"
Silver	0.0301	0.0200	"	"	"	"	"	"
Zinc	21.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	53.1	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	17.4	0.0500	"	"	"	"	"	"	
Sodium	57.2	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.74	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**PWV04-B@5'**  
**2407302-17 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.3		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.664	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST01@0-6"**  
**2407302-19 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0462	115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0422	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.5 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.9	87.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST01@0-6"**  
**2407302-19 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0334	100 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0386	116 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:20**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST01@0-6"**  
**2407302-19 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.488	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	2.93	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.692	0.400	"	"	"	"	"	"	
Lead	0.850	0.200	"	"	"	"	"	"	
Nickel	0.468	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	2.21	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 07/23/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: 07/23/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	16.1	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	3.52	0.0500	"	"	"	"	"	"	
Sodium	5.68	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 07/23/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.334	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST01@0-6"**  
**2407302-19 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	99.7			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.198	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.34			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST02@0-6"**  
**2407302-20 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0458	114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.3 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.6	85.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST02@0-6"**  
**2407302-20 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0182	54.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0226	67.7 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST02@0-6"**  
**2407302-20 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.50	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	15.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.28	0.400	"	"	"	"	"	"	
Lead	5.06	0.200	"	"	"	"	"	"	
Nickel	1.71	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	18.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	56.3	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	8.94	0.0500	"	"	"	"	"	"	
Sodium	9.36	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.306	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST02@0-6"**  
**2407302-20 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	99.7		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.533	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.74		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST03@0-6"**  
**2407302-21 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0522	131 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.5	84.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST03@0-6"**  
**2407302-21 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.4 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:24**

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST03@0-6"**  
**2407302-21 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.59	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	21.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.06	0.400	"	"	"	"	"	"	
Lead	3.74	0.200	"	"	"	"	"	"	
Nickel	1.78	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	19.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	56.2	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	13.3	0.0500	"	"	"	"	"	"	
Sodium	16.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.514	0.00100	units	1	BHG0841	07/29/24	07/29/24	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 - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST03@0-6"**  
**2407302-21 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	99.4			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.618	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.14			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST04@0-6"**  
**2407302-22 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0797	07/26/24	07/28/24	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: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0494	124 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0417	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0800	07/26/24	07/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.2	81.7 %	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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST04@0-6"**  
**2407302-22 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0669	07/24/24	07/25/24	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: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0183	55.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0230	68.9 %	40-150		"	"	"	"	

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:26**

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 - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST04@0-6"**  
**2407302-22 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.518	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	2.67	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.04	0.400	"	"	"	"	"	"	
Lead	0.991	0.200	"	"	"	"	"	"	
Nickel	0.756	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	3.16	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	56.0	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	6.09	0.0500	"	"	"	"	"	"	
Sodium	7.76	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.263	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**AST04@0-6"**  
**2407302-22 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	99.7			%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.488	0.0100		mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.43			pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@0-6''  
2407302-23 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.03	0.200	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
Barium	47.1	0.400	"	"	"	"	"	"	
Cadmium	0.205	0.200	"	"	"	"	"	"	
Copper	4.41	0.400	"	"	"	"	"	"	
Lead	7.04	0.200	"	"	"	"	"	"	
Nickel	3.40	0.400	"	"	"	"	"	"	
Silver	0.0478	0.0200	"	"	"	"	"	"	
Zinc	18.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	173	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
Magnesium	46.2	0.0500	"	"	"	"	"	"	
Sodium	41.0	0.0500	"	"	"	"	"	"	

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@0-6''**  
**2407302-23 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.715	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.6		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.384	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.33		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@1-2'**  
**2407302-24 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.85</b>	0.179	mg/kg dry	1	BHG0682	07/24/24	07/25/24	EPA 6020B	
<b>Barium</b>	<b>59.7</b>	0.357	"	"	"	"	"	"	
Cadmium	ND	0.179	"	"	"	"	"	"	
<b>Copper</b>	<b>3.92</b>	0.357	"	"	"	"	"	"	
<b>Lead</b>	<b>5.64</b>	0.179	"	"	"	"	"	"	
<b>Nickel</b>	<b>4.10</b>	0.357	"	"	"	"	"	"	
<b>Silver</b>	<b>0.0277</b>	0.0179	"	"	"	"	"	"	
<b>Zinc</b>	<b>15.2</b>	0.357	"	"	"	"	"	"	
Selenium	ND	0.232	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>116</b>	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
<b>Magnesium</b>	<b>54.1</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>131</b>	0.0500	"	"	"	"	"	"	

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@1-2'**  
**2407302-24 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.52	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.5		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.643	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.50		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@2.5'**  
**2407302-25 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>1.08</b>	0.200	mg/kg dry	1	BHG0683	07/24/24	07/25/24	EPA 6020B	
<b>Barium</b>	<b>35.5</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.17</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>2.93</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.72</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>10.1</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>43.2</b>	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
<b>Magnesium</b>	<b>28.5</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>440</b>	0.0500	"	"	"	"	"	"	

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@2.5'**  
**2407302-25 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	12.8	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.5		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.49	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.20		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@5'**  
**2407302-26 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0677	07/24/24	07/25/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>1.14</b>	0.200	mg/kg dry	1	BHG0683	07/24/24	07/25/24	EPA 6020B	
<b>Barium</b>	<b>34.7</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>1.95</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>2.53</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.47</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>9.81</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0672	07/24/24	07/24/24	EPA 7196A	

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

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>26.9</b>	0.0500	mg/L dry	1	BHG0684	07/24/24	07/26/24	EPA 6020B	
<b>Magnesium</b>	<b>17.1</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>261</b>	0.0500	"	"	"	"	"	"	

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**BKG01@5'**  
**2407302-26 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.68	0.00100	units	1	BHG0841	07/29/24	07/29/24	Calculation	

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

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.5		%	1	BHG0678	07/24/24	07/24/24	Calculation	

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

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.58	0.0100	mmhos/cm	1	BHG0685	07/24/24	07/26/24	EPA 120.1	

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

Date Sampled: **07/23/24 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.37		pH Units	1	BHG0687	07/24/24	07/26/24	EPA 9045D	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

#### Summit Scientific

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

#### Batch BHG0797 - EPA 5030 Soil MS

##### Blank (BHG0797-BLK1)

Prepared: 07/26/24 Analyzed: 07/28/24

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		99.5	50-150				
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	50-150				

##### LCS (BHG0797-BS1)

Prepared: 07/26/24 Analyzed: 07/28/24

Benzene	0.0899	0.0020	mg/kg	0.100		89.9	70-130				
Toluene	0.108	0.0050	"	0.100		108	70-130				
Ethylbenzene	0.0983	0.0050	"	0.100		98.3	70-130				
m,p-Xylene	0.199	0.010	"	0.200		99.6	70-130				
o-Xylene	0.0990	0.0050	"	0.100		99.0	70-130				
1,2,4-Trimethylbenzene	0.0914	0.0050	"	0.100		91.4	70-130				
1,3,5-Trimethylbenzene	0.0926	0.0050	"	0.100		92.6	70-130				
Naphthalene	0.0908	0.0038	"	0.100		90.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0482		"	0.0400		120	50-150				
Surrogate: Toluene-d8	0.0431		"	0.0400		108	50-150				
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	50-150				

##### Matrix Spike (BHG0797-MS1)

Source: 2407302-01

Prepared: 07/26/24 Analyzed: 07/28/24

Benzene	0.0838	0.0020	mg/kg	0.100	ND	83.8	70-130				
Toluene	0.102	0.0050	"	0.100	ND	102	70-130				
Ethylbenzene	0.0942	0.0050	"	0.100	ND	94.2	70-130				
m,p-Xylene	0.188	0.010	"	0.200	ND	94.0	70-130				
o-Xylene	0.0952	0.0050	"	0.100	ND	95.2	70-130				
1,2,4-Trimethylbenzene	0.0847	0.0050	"	0.100	ND	84.7	70-130				
1,3,5-Trimethylbenzene	0.0882	0.0050	"	0.100	ND	88.2	70-130				
Naphthalene	0.0849	0.0038	"	0.100	ND	84.9	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0495		"	0.0400		124	50-150				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	50-150				

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

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

**Batch BHG0797 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BHG0797-MSD1)</b>	<b>Source: 2407302-01</b>			<b>Prepared: 07/26/24 Analyzed: 07/28/24</b>						
Benzene	0.0819	0.0020	mg/kg	0.100	ND	81.9	70-130	2.21	30	
Toluene	0.0964	0.0050	"	0.100	ND	96.4	70-130	5.60	30	
Ethylbenzene	0.0951	0.0050	"	0.100	ND	95.1	70-130	0.919	30	
m,p-Xylene	0.190	0.010	"	0.200	ND	94.8	70-130	0.890	30	
o-Xylene	0.0939	0.0050	"	0.100	ND	93.9	70-130	1.46	30	
1,2,4-Trimethylbenzene	0.0806	0.0050	"	0.100	ND	80.6	70-130	5.05	30	
1,3,5-Trimethylbenzene	0.0885	0.0050	"	0.100	ND	88.5	70-130	0.340	30	
Naphthalene	0.0724	0.0038	"	0.100	ND	72.4	70-130	15.8	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0449</i>		<i>"</i>	<i>0.0400</i>		<i>112</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0385</i>		<i>"</i>	<i>0.0400</i>		<i>96.3</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0381</i>		<i>"</i>	<i>0.0400</i>		<i>95.3</i>	<i>50-150</i>			

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6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

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

**Batch BHG0800 - EPA 3550A**

**Blank (BHG0800-BLK1)**

Prepared: 07/26/24 Analyzed: 07/27/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		84.3	30-150			

**LCS (BHG0800-BS1)**

Prepared: 07/26/24 Analyzed: 07/27/24

C10-C28 (DRO)	444	50	mg/kg	500		88.8	70-130			
Surrogate: <i>o</i> -Terphenyl	10.0		"	12.5		80.3	30-150			

**Matrix Spike (BHG0800-MS1)**

Source: 2407302-01

Prepared: 07/26/24 Analyzed: 07/27/24

C10-C28 (DRO)	457	50	mg/kg	500	ND	91.4	70-130			
Surrogate: <i>o</i> -Terphenyl	8.46		"	12.5		67.7	30-150			

**Matrix Spike Dup (BHG0800-MSD1)**

Source: 2407302-01

Prepared: 07/26/24 Analyzed: 07/27/24

C10-C28 (DRO)	443	50	mg/kg	500	ND	88.6	70-130	3.10	20	
Surrogate: <i>o</i> -Terphenyl	9.04		"	12.5		72.4	30-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

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

**Batch BHG0669 - EPA 5030 Soil MS**

**Blank (BHG0669-BLK1)**

Prepared & Analyzed: 07/24/24

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0160</i>		"	<i>0.0333</i>		<i>48.0</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0195</i>		"	<i>0.0333</i>		<i>58.6</i>	<i>40-150</i>			

**LCS (BHG0669-BS1)**

Prepared & Analyzed: 07/24/24

Acenaphthene	0.0184	0.00500	mg/kg	0.0333		55.3	31-137			
Anthracene	0.0194	0.00500	"	0.0333		58.2	30-120			
Benzo (a) anthracene	0.0221	0.00500	"	0.0333		66.3	30-120			
Benzo (a) pyrene	0.0163	0.00500	"	0.0333		48.8	30-120			
Benzo (b) fluoranthene	0.0140	0.00500	"	0.0333		41.9	30-120			
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333		43.7	30-120			
Chrysene	0.0188	0.00500	"	0.0333		56.3	30-120			
Dibenz (a,h) anthracene	0.0189	0.00500	"	0.0333		56.8	30-120			
Fluoranthene	0.0196	0.00500	"	0.0333		58.9	30-120			
Fluorene	0.0194	0.00500	"	0.0333		58.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0206	0.00500	"	0.0333		61.9	30-120			
Pyrene	0.0249	0.00500	"	0.0333		74.6	35-142			
1-Methylnaphthalene	0.0183	0.00500	"	0.0333		54.9	35-142			
2-Methylnaphthalene	0.0182	0.00500	"	0.0333		54.5	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0179</i>		"	<i>0.0333</i>		<i>53.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0209</i>		"	<i>0.0333</i>		<i>62.6</i>	<i>40-150</i>			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0669 - EPA 5030 Soil MS**

<b>Matrix Spike (BHG0669-MS1)</b>	<b>Source: 2407302-01</b>			<b>Prepared &amp; Analyzed: 07/24/24</b>						
Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.1	31-137			
Anthracene	0.0197	0.00500	"	0.0333	ND	59.2	30-120			
Benzo (a) anthracene	0.0227	0.00500	"	0.0333	ND	68.2	30-120			
Benzo (a) pyrene	0.0148	0.00500	"	0.0333	ND	44.5	30-120			
Benzo (b) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.5	30-120			
Benzo (k) fluoranthene	0.0166	0.00500	"	0.0333	ND	49.9	30-120			
Chrysene	0.0184	0.00500	"	0.0333	ND	55.2	30-120			
Dibenz (a,h) anthracene	0.0148	0.00500	"	0.0333	ND	44.5	30-120			
Fluoranthene	0.0202	0.00500	"	0.0333	ND	60.5	30-120			
Fluorene	0.0197	0.00500	"	0.0333	ND	59.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0200	0.00500	"	0.0333	ND	60.1	30-120			
Pyrene	0.0232	0.00500	"	0.0333	ND	69.5	35-142			
1-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.9	15-130			
2-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.2	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0160</i>		<i>"</i>	<i>0.0333</i>		<i>47.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0207</i>		<i>"</i>	<i>0.0333</i>		<i>62.0</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BHG0669-MSD1)</b>	<b>Source: 2407302-01</b>			<b>Prepared &amp; Analyzed: 07/24/24</b>						
Acenaphthene	0.0150	0.00500	mg/kg	0.0333	ND	45.0	31-137	10.7	30	
Anthracene	0.0183	0.00500	"	0.0333	ND	54.8	30-120	7.73	30	
Benzo (a) anthracene	0.0216	0.00500	"	0.0333	ND	64.7	30-120	5.25	30	
Benzo (a) pyrene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	9.80	30	
Benzo (b) fluoranthene	0.0158	0.00500	"	0.0333	ND	47.4	30-120	8.12	30	
Benzo (k) fluoranthene	0.0198	0.00500	"	0.0333	ND	59.5	30-120	17.5	30	
Chrysene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	5.64	30	
Dibenz (a,h) anthracene	0.0189	0.00500	"	0.0333	ND	56.6	30-120	24.1	30	
Fluoranthene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	5.90	30	
Fluorene	0.0198	0.00500	"	0.0333	ND	59.3	30-120	0.482	30	
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	24.3	30	
Pyrene	0.0190	0.00500	"	0.0333	ND	57.0	35-142	19.7	30	
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130	4.90	50	
2-Methylnaphthalene	0.0191	0.00500	"	0.0333	ND	57.4	15-130	1.35	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0146</i>		<i>"</i>	<i>0.0333</i>		<i>43.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0192</i>		<i>"</i>	<i>0.0333</i>		<i>57.7</i>	<i>40-150</i>			

Summit Scientific

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

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

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

**Batch BHG0677 - EPA 3050B**

<b>Blank (BHG0677-BLK1)</b>				Prepared: 07/24/24 Analyzed: 07/25/24						
Boron	ND	2.00	mg/L							
<b>LCS (BHG0677-BS1)</b>				Prepared: 07/24/24 Analyzed: 07/25/24						
Boron	5.05	2.00	mg/L	5.00	101	80-120				
<b>Duplicate (BHG0677-DUP1)</b>				Source: 2407300-01 Prepared: 07/24/24 Analyzed: 07/25/24						
Boron	0.402	2.00	mg/L		0.435			7.95	20	
<b>Matrix Spike (BHG0677-MS1)</b>				Source: 2407300-01 Prepared: 07/24/24 Analyzed: 07/25/24						
Boron	5.64	2.00	mg/L	4.98	0.435	105	75-125			
<b>Matrix Spike Dup (BHG0677-MSD1)</b>				Source: 2407300-01 Prepared: 07/24/24 Analyzed: 07/25/24						
Boron	6.11	2.00	mg/L	4.98	0.435	114	75-125	7.96	25	

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0682 - EPA 3050B**

**Blank (BHG0682-BLK1)**

Prepared: 07/24/24 Analyzed: 07/25/24

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 (BHG0682-BS1)**

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	42.9	0.200	mg/kg wet	39.1	110	80-120				
Barium	52.1	0.400	"	39.1	133	80-120				QM-07
Cadmium	2.04	0.200	"	1.95	105	80-120				
Copper	39.9	0.400	"	39.1	102	80-120				
Lead	20.7	0.200	"	19.5	106	80-120				
Nickel	40.3	0.400	"	39.1	103	80-120				
Silver	2.08	0.0200	"	1.95	107	80-120				
Zinc	40.1	0.400	"	39.1	103	80-120				
Selenium	4.23	0.260	"	3.91	108	80-120				

**Duplicate (BHG0682-DUP1)**

Source: 2407301-32

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	6.84	0.200	mg/kg dry	6.89		0.825	20			
Barium	80.4	0.400	"	56.8		34.4	20			QR-02
Cadmium	0.620	0.200	"	0.551		11.9	20			
Copper	8.91	0.400	"	9.35		4.77	20			
Lead	17.7	0.200	"	15.3		14.1	20			
Nickel	7.88	0.400	"	7.81		0.935	20			
Silver	0.0817	0.0200	"	0.0696		15.9	20			
Zinc	33.1	0.400	"	34.5		4.15	20			
Selenium	0.369	0.260	"	0.342		7.66	20			

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6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0682 - EPA 3050B**

**Matrix Spike (BHG0682-MS1)**

Source: 2407301-32

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	57.6	0.200	mg/kg dry	47.5	6.89	107	75-125			
Barium	148	0.400	"	47.5	56.8	192	75-125			QM-07
Cadmium	3.20	0.200	"	2.38	0.551	112	75-125			
Copper	30.9	0.400	"	47.5	9.35	45.4	75-125			QM-05
Lead	41.8	0.200	"	23.8	15.3	111	75-125			
Nickel	29.6	0.400	"	47.5	7.81	45.8	75-125			QM-05
Silver	2.66	0.0200	"	2.38	0.0696	109	75-125			
Zinc	54.6	0.400	"	47.5	34.5	42.3	75-125			QM-05
Selenium	4.45	0.260	"	4.75	0.342	86.5	75-125			

**Matrix Spike Dup (BHG0682-MSD1)**

Source: 2407301-32

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	53.0	0.200	mg/kg dry	47.1	6.89	97.8	75-125	8.32	25	
Barium	107	0.400	"	47.1	56.8	107	75-125	32.0	25	QM-07
Cadmium	2.91	0.200	"	2.36	0.551	100	75-125	9.61	25	
Copper	30.4	0.400	"	47.1	9.35	44.6	75-125	1.79	25	QM-05
Lead	39.0	0.200	"	23.6	15.3	101	75-125	6.74	25	
Nickel	28.9	0.400	"	47.1	7.81	44.8	75-125	2.15	25	QM-05
Silver	2.52	0.0200	"	2.36	0.0696	104	75-125	5.28	25	
Zinc	55.1	0.400	"	47.1	34.5	43.7	75-125	0.896	25	QM-05
Selenium	4.21	0.260	"	4.71	0.342	82.0	75-125	5.62	25	

**Post Spike (BHG0682-PS1)**

Source: 2407301-32

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	118		ug/l	100	13.8	104	75-125			
Barium	204		"	100	114	89.4	75-125			
Cadmium	6.08		"	5.00	1.11	99.5	75-125			
Copper	66.5		"	100	18.8	47.7	75-125			QM-01
Lead	77.0		"	50.0	30.8	92.3	75-125			
Nickel	64.2		"	100	15.7	48.5	75-125			QM-01
Silver	5.08		"	5.00	0.140	98.8	75-125			
Zinc	119		"	100	69.2	50.2	75-125			QM-01
Selenium	9.31		"	10.0	0.687	86.2	75-125			

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0683 - EPA 3050B**

**Blank (BHG0683-BLK1)**

Prepared: 07/24/24 Analyzed: 07/25/24

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 (BHG0683-BS1)**

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	38.3	0.200	mg/kg wet	36.5	105	80-120
Barium	37.4	0.400	"	36.5	102	80-120
Cadmium	1.75	0.200	"	1.82	95.7	80-120
Copper	37.0	0.400	"	36.5	101	80-120
Lead	17.6	0.200	"	18.2	96.4	80-120
Nickel	36.5	0.400	"	36.5	99.9	80-120
Silver	1.75	0.0200	"	1.82	95.9	80-120
Zinc	37.0	0.400	"	36.5	101	80-120
Selenium	3.86	0.260	"	3.65	106	80-120

**Duplicate (BHG0683-DUP1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	2.46	0.200	mg/kg dry	2.32	5.69	20
Barium	80.3	0.400	"	87.3	8.29	20
Cadmium	0.272	0.200	"	0.234	15.1	20
Copper	5.49	0.400	"	5.32	3.14	20
Lead	7.88	0.200	"	7.53	4.47	20
Nickel	6.23	0.400	"	5.93	4.99	20
Silver	0.0196	0.0200	"	0.0170	14.6	20
Zinc	18.7	0.400	"	18.5	1.04	20
Selenium	ND	0.260	"	ND		20

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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0683 - EPA 3050B**

**Matrix Spike (BHG0683-MS1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	21.0	0.200	mg/kg dry	40.5	2.32	46.2	75-125				QM-05
Barium	114	0.400	"	40.5	87.3	65.2	75-125				QM-07
Cadmium	2.23	0.200	"	2.03	0.234	98.3	75-125				
Copper	23.9	0.400	"	40.5	5.32	45.8	75-125				QM-05
Lead	24.1	0.200	"	20.3	7.53	81.8	75-125				
Nickel	23.8	0.400	"	40.5	5.93	44.2	75-125				QM-05
Silver	1.95	0.0200	"	2.03	0.0170	95.2	75-125				
Zinc	37.0	0.400	"	40.5	18.5	45.6	75-125				QM-05
Selenium	3.23	0.260	"	4.05	ND	79.6	75-125				

**Matrix Spike Dup (BHG0683-MSD1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	19.9	0.181	mg/kg dry	40.0	2.32	44.0	75-125	5.63	25		QM-05
Barium	143	0.362	"	40.0	87.3	141	75-125	23.1	25		QM-07
Cadmium	2.19	0.181	"	2.00	0.234	98.0	75-125	1.50	25		
Copper	23.1	0.362	"	40.0	5.32	44.4	75-125	3.57	25		QM-05
Lead	23.4	0.181	"	20.0	7.53	79.5	75-125	2.95	25		
Nickel	23.7	0.362	"	40.0	5.93	44.5	75-125	0.472	25		QM-05
Silver	1.92	0.0181	"	2.00	0.0170	95.2	75-125	1.50	25		
Zinc	36.2	0.362	"	40.0	18.5	44.3	75-125	2.13	25		QM-05
Selenium	3.15	0.236	"	4.00	ND	78.9	75-125	2.24	25		

**Post Spike (BHG0683-PS1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/25/24

Arsenic	55.3		ug/l	100	5.27	50.0	75-125				QM-01
Barium	296		"	100	198	98.5	75-125				
Cadmium	5.42		"	5.00	0.530	97.8	75-125				
Copper	61.2		"	100	12.1	49.1	75-125				QM-01
Lead	59.8		"	50.0	17.1	85.4	75-125				
Nickel	61.8		"	100	13.4	48.4	75-125				QM-01
Silver	4.88		"	5.00	0.0385	96.9	75-125				
Zinc	92.8		"	100	42.0	50.8	75-125				QM-01
Selenium	8.92		"	10.0	0.133	87.9	75-125				

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Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

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

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

**Batch BHG0672 - 3060A Mod**

**Blank (BHG0672-BLK1)**

Prepared & Analyzed: 07/24/24

Chromium, Hexavalent      ND      0.30 mg/kg wet

**LCS (BHG0672-BS1)**

Prepared & Analyzed: 07/24/24

Chromium, Hexavalent      25.6      0.30 mg/kg wet      25.0      103      80-120

**Duplicate (BHG0672-DUP1)**

**Source: 2407302-01**

Prepared & Analyzed: 07/24/24

Chromium, Hexavalent      ND      0.30 mg/kg dry      ND      20

**Matrix Spike (BHG0672-MS1)**

**Source: 2407302-01**

Prepared & Analyzed: 07/24/24

Chromium, Hexavalent      24.7      0.30 mg/kg dry      27.0      ND      91.4      75-125

**Matrix Spike Dup (BHG0672-MSD1)**

**Source: 2407302-01**

Prepared & Analyzed: 07/24/24

Chromium, Hexavalent      23.9      0.30 mg/kg dry      27.0      ND      88.4      75-125      3.34      20

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0684 - General Preparation**

**Blank (BHG0684-BLK1)**

Prepared: 07/24/24 Analyzed: 07/26/24

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

**LCS (BHG0684-BS1)**

Prepared: 07/24/24 Analyzed: 07/26/24

Calcium	5.62	0.0500	mg/L wet			70-130				
Magnesium	5.78	0.0500	"			70-130				
Sodium	5.71	0.0500	"			70-130				

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Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0678 - General Preparation**

**Duplicate (BHG0678-DUP1)**

**Source: 2407302-01**

**Prepared & Analyzed: 07/24/24**

% Solids	92.7		%		92.5			0.245	20	
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Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery  
Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0685 - General Preparation**

**Blank (BHG0685-BLK1)**

Prepared: 07/24/24 Analyzed: 07/26/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHG0685-BS1)**

Prepared: 07/24/24 Analyzed: 07/26/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BHG0685-DUP1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/26/24

Specific Conductance (EC) 0.206 0.0100 mmhos/cm 0.209 1.30 20

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

**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 BHG0687 - General Preparation**

**LCS (BHG0687-BS1)**

Prepared: 07/24/24 Analyzed: 07/26/24

pH	9.17	pH Units	9.18	99.9	95-105
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**Duplicate (BHG0687-DUP1)**

Source: 2407289-01

Prepared: 07/24/24 Analyzed: 07/26/24

pH	9.06	pH Units	9.18	1.32	20
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Summit Scientific

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Reinick C-64N64W 9SENE Tank Battery

Project Number: UWRWE-A2811-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
08/02/24 13:15

### Notes and Definitions

- 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.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference