

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 19, 2025

Daniel Simpson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Reistad 1 Tank Battery

Work Order #2412394

Enclosed are the results of analyses for samples received by Summit Scientific on 12/18/24 18:07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Ben Shrewsbury

Laboratory Manager



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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01R@6-7'	2412394-01	Soil	12/18/24 10:00	12/18/24 18:07
BH01R@7-8'	2412394-02	Soil	12/18/24 10:07	12/18/24 18:07
BH01R@8-9'	2412394-03	Soil	12/18/24 10:04	12/18/24 18:07
BH01R@10-11'	2412394-04	Soil	12/18/24 10:06	12/18/24 18:07

Summit Scientific

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

Lab ID	Page 1 of 1
2412394	

		Send Data To:	Send Invoice To:
Client: Tasman, Inc.		Project Manager: Daniel Simpson	Company: Noble
Address: 6855 W. 119th Ave.		E-Mail: tas-chevron-5@tasman-geo.com	Project Name/Location: Reistad 1 Tank Battery
City/State/Zip: Broomfield / CO/ 80020		RBUEUF27@chevron.com / Dan.peterson@chevron.com	AFE#:
Phone:		Project Name: Reistad 1 Tank Battery	PO/Billing Codes:
Sampler Name: S. Anderson		Project Number:	Contact:

				Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	SAR, EC, pH by saturated paste
1	BHOIR 6-7'	12/18/24	10:00	2			X			X			X	X	X	X	X	X		
2	BHOIR 7-8'		10:02																	
3	BHOIR 8-9'		10:04																	
4	BHOIR 10-11'		10:06																	
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
	12/18/24 1556	Tasman Lockbox	12/18/24 1556	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Tasman Lockbox	12/18/24 1807		12/18/24 1807	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 7.3	Corrected Temperature	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2412394Client: Tasman / NobleClient Project ID: Reisted 1 Tank BatteryShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐Airbill #:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply)

Air

☐

Soil

☒

Solid

☐

Water

☐

Other

☐

Temp (°C)

7.3

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>none</u>
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS

Custodian Printed Name

12/18/24

Date/Time



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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@6-7'
2412394-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHL1309	12/30/24	01/01/25	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: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0525	131 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHL1321	12/30/24	01/03/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.9	87.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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BH01R@6-7'
2412394-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL1289	12/30/24	01/03/25	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: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0254	76.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0289	86.8 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	2.96	2.00	mg/L	1	BIB0532	02/11/25	02/18/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **12/18/24 10:00**

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 - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@6-7'
2412394-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.22	0.200	mg/kg dry	1	BIB0362	02/07/25	02/18/25	EPA 6020B
Barium	32.1	0.400	"	"	"	"	"	"
Cadmium	0.299	0.200	"	"	"	"	"	"
Copper	8.44	0.400	"	"	"	"	"	"
Lead	14.4	0.200	"	"	"	"	"	"
Nickel	4.83	0.400	"	"	"	"	"	"
Silver	0.0376	0.0200	"	"	"	"	"	"
Zinc	31.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA0648	01/15/25	01/17/25	EPA 7196A	

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

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	60.2	0.0500	mg/L dry	1	BIA0499	01/13/25	01/20/25	EPA 6020B	
Magnesium	17.3	0.0500	"	"	"	"	"	"	
Sodium	214	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.26	0.00100	units	1	BIA0948	01/21/25	01/21/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
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Project Number: [none]
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Reported:
02/19/25 10:05

BH01R@6-7'
2412394-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.0	%	1	BIA0603	01/14/25	01/16/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.633	0.0100	mmhos/cm	1	BIA0484	01/13/25	01/16/25	EPA 120.1	

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

Date Sampled: **12/18/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BIA0479	01/13/25	01/16/25	EPA 9045D	

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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@7-8'
2412394-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHL1309	12/30/24	01/01/25	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: **12/18/24 10:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0541	135 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0427	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHL1321	12/30/24	01/03/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	6.75	54.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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6855 W. 119th Ave.
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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
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Reported:
02/19/25 10:05

BH01R@7-8'
2412394-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL1289	12/30/24	01/03/25	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: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0199	59.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0227	68.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	2.25	2.00	mg/L	1	BIB0532	02/11/25	02/18/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **12/18/24 10:07**

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 - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@7-8'
2412394-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	7.21	0.200	mg/kg dry	1	BIB0362	02/07/25	02/18/25	EPA 6020B
Barium	39.7	0.400	"	"	"	"	"	"
Cadmium	0.204	0.200	"	"	"	"	"	"
Copper	3.66	0.400	"	"	"	"	"	"
Lead	19.8	0.200	"	"	"	"	"	"
Nickel	4.40	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	33.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA0648	01/15/25	01/17/25	EPA 7196A	

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

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	174	0.0500	mg/L dry	1	BIA0499	01/13/25	01/20/25	EPA 6020B	
Magnesium	42.7	0.0500	"	"	"	"	"	"	
Sodium	695	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	12.2	0.00100	units	1	BIA0948	01/21/25	01/21/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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6855 W. 119th Ave.
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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@7-8'
2412394-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.5		%	1	BIA0603	01/14/25	01/16/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.70	0.0100	mmhos/cm	1	BIA0484	01/13/25	01/16/25	EPA 120.1	

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

Date Sampled: **12/18/24 10:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.34		pH Units	1	BIA0479	01/13/25	01/16/25	EPA 9045D	

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@8-9'
2412394-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHL1309	12/30/24	01/01/25	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: **12/18/24 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0570	142 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHL1321	12/30/24	01/03/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	6.93	55.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@8-9'
2412394-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL1289	12/30/24	01/03/25	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: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0214	64.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0242	72.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	3.00	2.00	mg/L	1	BIB0532	02/11/25	02/18/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **12/18/24 10:04**

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 - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@8-9'
2412394-03 (Soil)

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Total Metals by EPA 6020B

Arsenic	12.1	0.200	mg/kg dry	1	BIB0362	02/07/25	02/18/25	EPA 6020B
Barium	31.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.95	0.400	"	"	"	"	"	"
Lead	5.07	0.200	"	"	"	"	"	"
Nickel	2.36	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	17.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA0648	01/15/25	01/17/25	EPA 7196A	

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

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	126	0.0500	mg/L dry	1	BIA0499	01/13/25	01/20/25	EPA 6020B	
Magnesium	64.6	0.0500	"	"	"	"	"	"	
Sodium	775	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	14.0	0.00100	units	1	BIA0948	01/21/25	01/21/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@8-9'
2412394-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.7		%	1	BIA0603	01/14/25	01/16/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.55	0.0100	mmhos/cm	1	BIA0484	01/13/25	01/16/25	EPA 120.1	

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

Date Sampled: **12/18/24 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.78		pH Units	1	BIA0479	01/13/25	01/16/25	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@10-11'
2412394-04 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHL1309	12/30/24	01/01/25	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: **12/18/24 10:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0519	130 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0425	106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHL1321	12/30/24	01/03/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.41	67.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@10-11'
2412394-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL1289	12/30/24	01/03/25	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: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0276	82.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0319	95.8 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0532	02/11/25	02/18/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **12/18/24 10:06**

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 - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@10-11'
2412394-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.31	0.200	mg/kg dry	1	BIB0362	02/07/25	02/18/25	EPA 6020B
Barium	11.5	0.400	"	"	"	"	"	"
Cadmium	0.338	0.200	"	"	"	"	"	"
Copper	5.49	0.400	"	"	"	"	"	"
Lead	7.83	0.200	"	"	"	"	"	"
Nickel	7.37	0.400	"	"	"	"	"	"
Silver	0.0492	0.0200	"	"	"	"	"	"
Zinc	35.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA0648	01/15/25	01/17/25	EPA 7196A	

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

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	75.8	0.0500	mg/L dry	1	BIA0499	01/13/25	01/20/25	EPA 6020B	
Magnesium	35.1	0.0500	"	"	"	"	"	"	
Sodium	195	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.64	0.00100	units	1	BIA0948	01/21/25	01/21/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **12/18/24 10:06**

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 - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

BH01R@10-11'
2412394-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.6	%	1	BIA0603	01/14/25	01/16/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.55	0.0100	mmhos/cm	1	BIA0484	01/13/25	01/16/25	EPA 120.1	

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

Date Sampled: **12/18/24 10:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.52		pH Units	1	BIA0479	01/13/25	01/16/25	EPA 9045D	

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHL1309 - EPA 5030 Soil MS

Blank (BHL1309-BLK1)

Prepared: 12/30/24 Analyzed: 01/01/25

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	0.0458		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	50-150			

LCS (BHL1309-BS1)

Prepared: 12/30/24 Analyzed: 01/01/25

Benzene	0.0954	0.0020	mg/kg	0.100		95.4	70-130			
Toluene	0.0917	0.0050	"	0.100		91.7	70-130			
Ethylbenzene	0.0923	0.0050	"	0.100		92.3	70-130			
m,p-Xylene	0.176	0.010	"	0.200		88.0	70-130			
o-Xylene	0.0887	0.0050	"	0.100		88.7	70-130			
1,2,4-Trimethylbenzene	0.0886	0.0050	"	0.100		88.6	70-130			
1,3,5-Trimethylbenzene	0.0873	0.0050	"	0.100		87.3	70-130			
Naphthalene	0.0824	0.0038	"	0.100		82.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0475		"	0.0400		119	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	50-150			

Matrix Spike (BHL1309-MS1)

Source: 2412384-01

Prepared: 12/30/24 Analyzed: 01/01/25

Benzene	0.0868	0.0020	mg/kg	0.100	ND	86.8	70-130			
Toluene	0.0833	0.0050	"	0.100	ND	83.3	70-130			
Ethylbenzene	0.0835	0.0050	"	0.100	ND	83.5	70-130			
m,p-Xylene	0.159	0.010	"	0.200	ND	79.6	70-130			
o-Xylene	0.0788	0.0050	"	0.100	ND	78.8	70-130			
1,2,4-Trimethylbenzene	0.0746	0.0050	"	0.100	ND	74.6	70-130			
1,3,5-Trimethylbenzene	0.0734	0.0050	"	0.100	ND	73.4	70-130			
Naphthalene	0.0664	0.0038	"	0.100	ND	66.4	70-130			QM-05
Surrogate: 1,2-Dichloroethane-d4	0.0483		"	0.0400		121	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

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

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

Batch BHL1309 - EPA 5030 Soil MS

Matrix Spike Dup (BHL1309-MSD1)

Source: 2412384-01

Prepared: 12/30/24 Analyzed: 01/01/25

Benzene	0.0853	0.0020	mg/kg	0.100	ND	85.3	70-130	1.78	30	
Toluene	0.0816	0.0050	"	0.100	ND	81.6	70-130	2.15	30	
Ethylbenzene	0.0801	0.0050	"	0.100	ND	80.1	70-130	4.15	30	
m,p-Xylene	0.151	0.010	"	0.200	ND	75.5	70-130	5.28	30	
o-Xylene	0.0749	0.0050	"	0.100	ND	74.9	70-130	5.11	30	
1,2,4-Trimethylbenzene	0.0687	0.0050	"	0.100	ND	68.7	70-130	8.25	30	QM-05
1,3,5-Trimethylbenzene	0.0690	0.0050	"	0.100	ND	69.0	70-130	6.20	30	QM-05
Naphthalene	0.0598	0.0038	"	0.100	ND	59.8	70-130	10.4	30	QM-05
Surrogate: 1,2-Dichloroethane-d4	0.0476		"	0.0400		119	50-150			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.1	50-150			

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHL1321 - EPA 3550A

Blank (BHL1321-BLK1)

Prepared: 12/30/24 Analyzed: 01/03/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	10.8		"	12.5		86.6	30-150			

LCS (BHL1321-BS1)

Prepared: 12/30/24 Analyzed: 01/03/25

C10-C28 (DRO)	510	50	mg/kg	500		102	70-130			
Surrogate: o-Terphenyl	11.7		"	12.5		93.4	30-150			

Matrix Spike (BHL1321-MS1)

Source: 2412384-01

Prepared: 12/30/24 Analyzed: 01/03/25

C10-C28 (DRO)	437	50	mg/kg	500	42.4	78.8	70-130			
Surrogate: o-Terphenyl	9.50		"	12.5		76.0	30-150			

Matrix Spike Dup (BHL1321-MSD1)

Source: 2412384-01

Prepared: 12/30/24 Analyzed: 01/03/25

C10-C28 (DRO)	486	50	mg/kg	500	42.4	88.6	70-130	10.6	20	
Surrogate: o-Terphenyl	11.7		"	12.5		93.5	30-150			

Summit Scientific

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHL1289 - EPA 5030 Soil MS

Blank (BHL1289-BLK1)

Prepared: 12/30/24 Analyzed: 01/02/25

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0231		"	0.0333		69.3	40-140			
Surrogate: Fluoranthene-d10	0.0258		"	0.0333		77.5	40-140			

LCS (BHL1289-BS1)

Prepared: 12/30/24 Analyzed: 01/02/25

Acenaphthene	0.0242	0.00500	mg/kg	0.0333		72.6	40-140			
Anthracene	0.0259	0.00500	"	0.0333		77.6	40-140			
Benzo (a) anthracene	0.0253	0.00500	"	0.0333		75.9	40-140			
Benzo (a) pyrene	0.0238	0.00500	"	0.0333		71.4	40-140			
Benzo (b) fluoranthene	0.0231	0.00500	"	0.0333		69.4	40-140			
Benzo (k) fluoranthene	0.0236	0.00500	"	0.0333		70.8	40-140			
Chrysene	0.0249	0.00500	"	0.0333		74.7	40-140			
Dibenz (a,h) anthracene	0.0219	0.00500	"	0.0333		65.8	40-140			
Fluoranthene	0.0243	0.00500	"	0.0333		72.8	40-140			
Fluorene	0.0247	0.00500	"	0.0333		74.2	40-140			
Indeno (1,2,3-cd) pyrene	0.0236	0.00500	"	0.0333		70.8	40-140			
Pyrene	0.0255	0.00500	"	0.0333		76.4	40-140			
1-Methylnaphthalene	0.0212	0.00500	"	0.0333		63.5	40-140			
2-Methylnaphthalene	0.0212	0.00500	"	0.0333		63.6	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0211		"	0.0333		63.4	40-140			
Surrogate: Fluoranthene-d10	0.0250		"	0.0333		75.1	40-140			

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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

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PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHL1289 - EPA 5030 Soil MS

Matrix Spike (BHL1289-MS1)

Source: 2412385-01

Prepared: 12/30/24 Analyzed: 01/03/25

Acenaphthene	0.0215	0.00500	mg/kg	0.0333	ND	64.6	40-140		
Anthracene	0.0225	0.00500	"	0.0333	ND	67.4	40-140		
Benzo (a) anthracene	0.0222	0.00500	"	0.0333	ND	66.5	40-140		
Benzo (a) pyrene	0.0205	0.00500	"	0.0333	ND	61.5	40-140		
Benzo (b) fluoranthene	0.0200	0.00500	"	0.0333	ND	60.1	40-140		
Benzo (k) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.8	40-140		
Chrysene	0.0213	0.00500	"	0.0333	ND	64.0	40-140		
Dibenz (a,h) anthracene	0.0170	0.00500	"	0.0333	ND	50.9	40-140		
Fluoranthene	0.0215	0.00500	"	0.0333	ND	64.6	40-140		
Fluorene	0.0216	0.00500	"	0.0333	ND	64.7	40-140		
Indeno (1,2,3-cd) pyrene	0.0188	0.00500	"	0.0333	ND	56.5	40-140		
Pyrene	0.0230	0.00500	"	0.0333	ND	68.9	40-140		
1-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.1	40-140		
2-Methylnaphthalene	0.0207	0.00500	"	0.0333	ND	62.2	40-140		
Surrogate: 2-Methylnaphthalene-d10	0.0194		"	0.0333		58.1	40-140		
Surrogate: Fluoranthene-d10	0.0218		"	0.0333		65.5	40-140		

Matrix Spike Dup (BHL1289-MSD1)

Source: 2412385-01

Prepared: 12/30/24 Analyzed: 01/03/25

Acenaphthene	0.0228	0.00500	mg/kg	0.0333	ND	68.5	40-140	5.85	30
Anthracene	0.0248	0.00500	"	0.0333	ND	74.2	40-140	9.65	30
Benzo (a) anthracene	0.0247	0.00500	"	0.0333	ND	74.0	40-140	10.8	30
Benzo (a) pyrene	0.0223	0.00500	"	0.0333	ND	66.8	40-140	8.29	30
Benzo (b) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.8	40-140	4.36	30
Benzo (k) fluoranthene	0.0204	0.00500	"	0.0333	ND	61.3	40-140	2.45	30
Chrysene	0.0242	0.00500	"	0.0333	ND	72.7	40-140	12.8	30
Dibenz (a,h) anthracene	0.0214	0.00500	"	0.0333	ND	64.3	40-140	23.3	30
Fluoranthene	0.0250	0.00500	"	0.0333	ND	75.1	40-140	15.1	30
Fluorene	0.0233	0.00500	"	0.0333	ND	69.8	40-140	7.61	30
Indeno (1,2,3-cd) pyrene	0.0231	0.00500	"	0.0333	ND	69.4	40-140	20.6	30
Pyrene	0.0250	0.00500	"	0.0333	ND	74.9	40-140	8.37	30
1-Methylnaphthalene	0.0210	0.00500	"	0.0333	ND	63.0	40-140	8.09	30
2-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.7	40-140	0.792	30
Surrogate: 2-Methylnaphthalene-d10	0.0199		"	0.0333		59.8	40-140		
Surrogate: Fluoranthene-d10	0.0238		"	0.0333		71.4	40-140		

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

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

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

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

Batch BIB0532 - EPA 3050B

Blank (BIB0532-BLK1)

Prepared: 02/11/25 Analyzed: 02/18/25

Boron ND 2.00 mg/L

LCS (BIB0532-BS1)

Prepared: 02/11/25 Analyzed: 02/18/25

Boron 4.82 2.00 mg/L 5.00 96.4 80-120

Duplicate (BIB0532-DUP1)

Source: 2412393-01

Prepared: 02/11/25 Analyzed: 02/18/25

Boron 0.0299 2.00 mg/L 0.126 123 20 QR-01

Matrix Spike (BIB0532-MS1)

Source: 2412393-01

Prepared: 02/11/25 Analyzed: 02/18/25

Boron 5.33 2.00 mg/L 5.00 0.126 104 75-125

Matrix Spike Dup (BIB0532-MSD1)

Source: 2412393-01

Prepared: 02/11/25 Analyzed: 02/18/25

Boron 5.17 2.00 mg/L 5.00 0.126 101 75-125 2.97 25

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIB0362 - EPA 3050B

Blank (BIB0362-BLK1)

Prepared: 02/07/25 Analyzed: 02/17/25

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 (BIB0362-BS1)

Prepared: 02/07/25 Analyzed: 02/17/25

Arsenic	45.4	0.200	mg/kg wet	38.5	118	80-120
Barium	44.5	0.400	"	38.5	116	80-120
Cadmium	2.16	0.200	"	1.92	113	80-120
Copper	43.8	0.400	"	38.5	114	80-120
Lead	21.4	0.200	"	19.2	112	80-120
Nickel	46.0	0.400	"	38.5	120	80-120
Silver	2.19	0.0200	"	1.92	114	80-120
Zinc	46.3	0.400	"	38.5	120	80-120
Selenium	4.61	0.260	"	3.85	120	80-120

Duplicate (BIB0362-DUP1)

Source: 2412363-01

Prepared: 02/07/25 Analyzed: 02/17/25

Arsenic	3.48	0.200	mg/kg dry	3.37	3.46	20
Barium	108	0.400	"	109	0.787	20
Cadmium	0.277	0.200	"	0.277	0.231	20
Copper	6.32	0.400	"	6.04	4.53	20
Lead	9.32	0.200	"	9.48	1.65	20
Nickel	7.42	0.400	"	7.10	4.47	20
Silver	0.0508	0.0200	"	0.0556	8.98	20
Zinc	25.8	0.400	"	25.0	3.23	20
Selenium	0.177	0.260	"	0.192	7.97	20

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Broomfield CO, 80020

Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIB0362 - EPA 3050B

Matrix Spike (BIB0362-MS1)		Source: 2412363-01			Prepared: 02/07/25		Analyzed: 02/17/25			
Arsenic	34.8	0.200	mg/kg dry	47.2	3.37	66.6	75-125			QM-05
Barium	166	0.400	"	47.2	109	121	75-125			
Cadmium	2.80	0.200	"	2.36	0.277	107	75-125			
Copper	35.8	0.400	"	47.2	6.04	63.0	75-125			QM-05
Lead	33.7	0.200	"	23.6	9.48	102	75-125			
Nickel	38.8	0.400	"	47.2	7.10	67.1	75-125			QM-05
Silver	2.58	0.0200	"	2.36	0.0556	107	75-125			
Zinc	56.4	0.400	"	47.2	25.0	66.6	75-125			QM-05
Selenium	4.75	0.260	"	4.72	0.192	96.6	75-125			

Matrix Spike Dup (BIB0362-MSD1)		Source: 2412363-01			Prepared: 02/07/25		Analyzed: 02/17/25			
Arsenic	36.4	0.200	mg/kg dry	49.6	3.37	66.6	75-125	4.47	25	QM-05
Barium	181	0.400	"	49.6	109	147	75-125	8.91	25	QM-05
Cadmium	2.88	0.200	"	2.48	0.277	105	75-125	2.76	25	
Copper	37.3	0.400	"	49.6	6.04	63.0	75-125	4.08	25	QM-05
Lead	34.9	0.200	"	24.8	9.48	102	75-125	3.50	25	
Nickel	40.5	0.400	"	49.6	7.10	67.5	75-125	4.43	25	QM-05
Silver	2.65	0.0200	"	2.48	0.0556	105	75-125	2.88	25	
Zinc	60.3	0.400	"	49.6	25.0	71.4	75-125	6.71	25	QM-05
Selenium	5.03	0.260	"	4.96	0.192	97.5	75-125	5.59	25	

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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIA0648 - 3060A Mod

Blank (BIA0648-BLK1)

Prepared: 01/15/25 Analyzed: 01/17/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIA0648-BS1)

Prepared: 01/15/25 Analyzed: 01/17/25

Chromium, Hexavalent 25.8 0.30 mg/kg wet 25.0 103 80-120

Duplicate (BIA0648-DUP1)

Source: 2412388-01

Prepared: 01/15/25 Analyzed: 01/17/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIA0648-MS1)

Source: 2412388-01

Prepared: 01/15/25 Analyzed: 01/17/25

Chromium, Hexavalent 31.8 0.30 mg/kg dry 31.5 ND 101 75-125

Matrix Spike Dup (BIA0648-MSD1)

Source: 2412388-01

Prepared: 01/15/25 Analyzed: 01/17/25

Chromium, Hexavalent 30.1 0.30 mg/kg dry 29.1 ND 103 75-125 5.54 20

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Project: Noble - Reistad 1 Tank Battery

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Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

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

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

Batch BIA0499 - General Preparation

Blank (BIA0499-BLK1)

Prepared: 01/13/25 Analyzed: 01/20/25

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

LCS (BIA0499-BS1)

Prepared: 01/13/25 Analyzed: 01/20/25

Calcium	5.36	0.0500	mg/L wet	5.00	107	70-130
Magnesium	4.88	0.0500	"	5.00	97.6	70-130
Sodium	4.96	0.0500	"	5.00	99.3	70-130

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Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

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

Batch BIA0603 - General Preparation

Duplicate (BIA0603-DUP1)		Source: 2412379-01		Prepared: 01/14/25 Analyzed: 01/16/25	
% Solids	92.9		%	93.4	0.553 20

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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

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

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

Batch BIA0484 - General Preparation

Blank (BIA0484-BLK1)

Prepared: 01/13/25 Analyzed: 01/16/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIA0484-BS1)

Prepared: 01/13/25 Analyzed: 01/16/25

Specific Conductance (EC) 1.37 0.0100 mmhos/cm 1.41 96.8 95-105

Duplicate (BIA0484-DUP1)

Source: 2412368-43

Prepared: 01/13/25 Analyzed: 01/16/25

Specific Conductance (EC) 13.8 0.0100 mmhos/cm 13.9 0.538 20

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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

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

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

Batch BIA0479 - General Preparation

LCS (BIA0479-BS1)

Prepared: 01/13/25 Analyzed: 01/16/25

pH	9.01	pH Units	9.18	98.1	95-105
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Duplicate (BIA0479-DUP1)

Source: 2412368-43

Prepared: 01/13/25 Analyzed: 01/16/25

pH	8.42	pH Units	8.45	0.460	20
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Project: Noble - Reistad 1 Tank Battery

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
02/19/25 10:05

Notes and Definitions

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