

Other Facility Equipment

<i>Equipment type</i>	Meter House	Flare		
<i>Equipment</i>	Good	Good		
<i>Age</i>				
<i>Soil impacts</i>	None observed	None observed		
<i>PID Readings</i>	0.1, 0.3	0.1, 0.2		
<i>Sample taken?</i>	yes, see below	yes, see below		
<i>Photo Number(s)</i>	11 & 12	13 & 14		


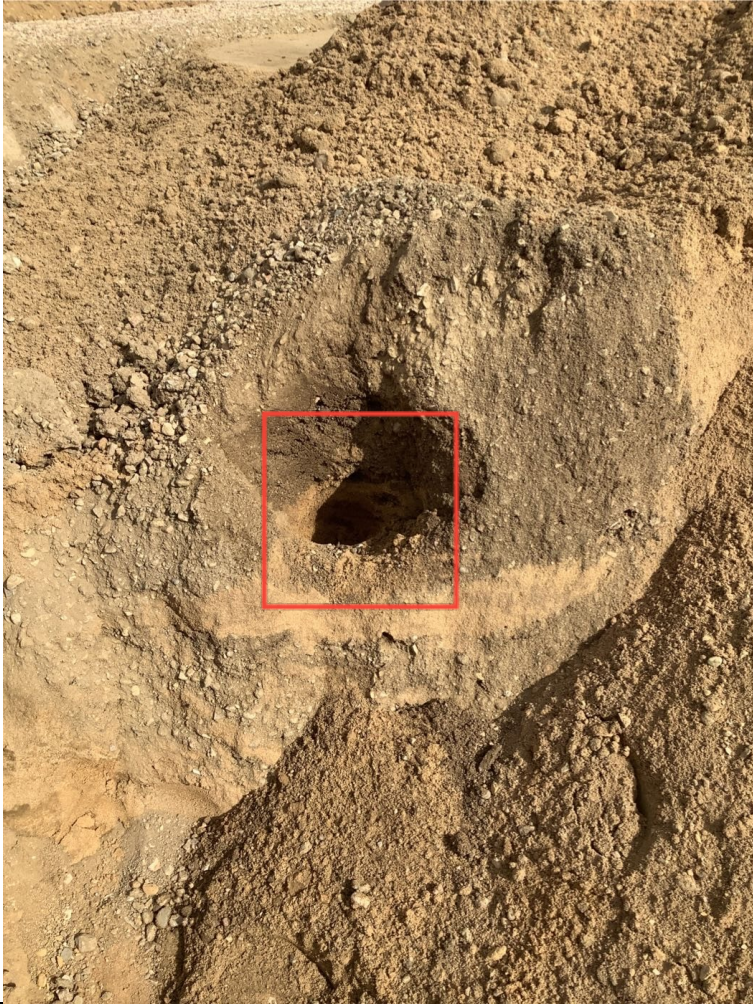
Other observations regarding other facility or third party equipment:

Samples were taken from both meter houses on site (MH01@0.5', MH02@0.5') as well as from the base of both flares (FLARE01@0.5' , FLARE02@0.5').

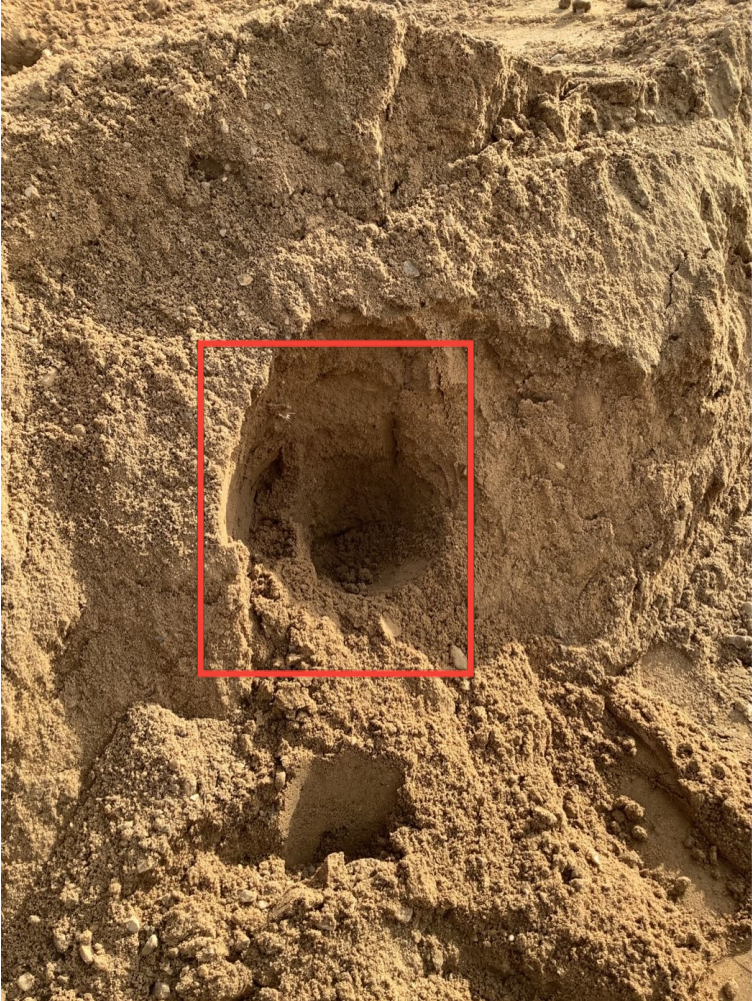

Summary

<i>Was impacted soil identified?</i>		No	Yes - less than 10 cubic yards	Yes - more than 10 cubic yards
<i>Total number of samples field screened:</i>		15	<i>Total number of samples collected:</i> 15	
<i>Highest PID Reading:</i>		3.0	<i>Total number of samples submitted to lab for analysis:</i> 6	
<i>If more than 10 cubic yards of impacted soil were observed:</i>				
<i>Vertical extent:</i>		<i>Estimated spill volume:</i>		
<i>Lateral extent:</i>		<i>Volume of soil removed:</i>		
<i>Is additional investigation required?</i>				
<i>Was groundwater encountered during the investigation?</i>				
No		Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils		
<i>Measured depth to groundwater:</i>		<i>Was remedial groundwater removal conducted?</i> Yes No		
<i>Date Groundwater was encountered:</i>		<i>Commencement date of removal:</i>		
<i>Sheen on groundwater?</i> Yes No		<i>Volume of groundwater removed prior to sampling:</i>		
<i>Free product observed?</i> Yes No		<i>Volume of groundwater removed post sampling:</i>		
<i>Total number of samples collected:</i>		<i>Total Volume of groundwater removed:</i>		
<i>Total number of samples submitted to lab for analysis:</i>				

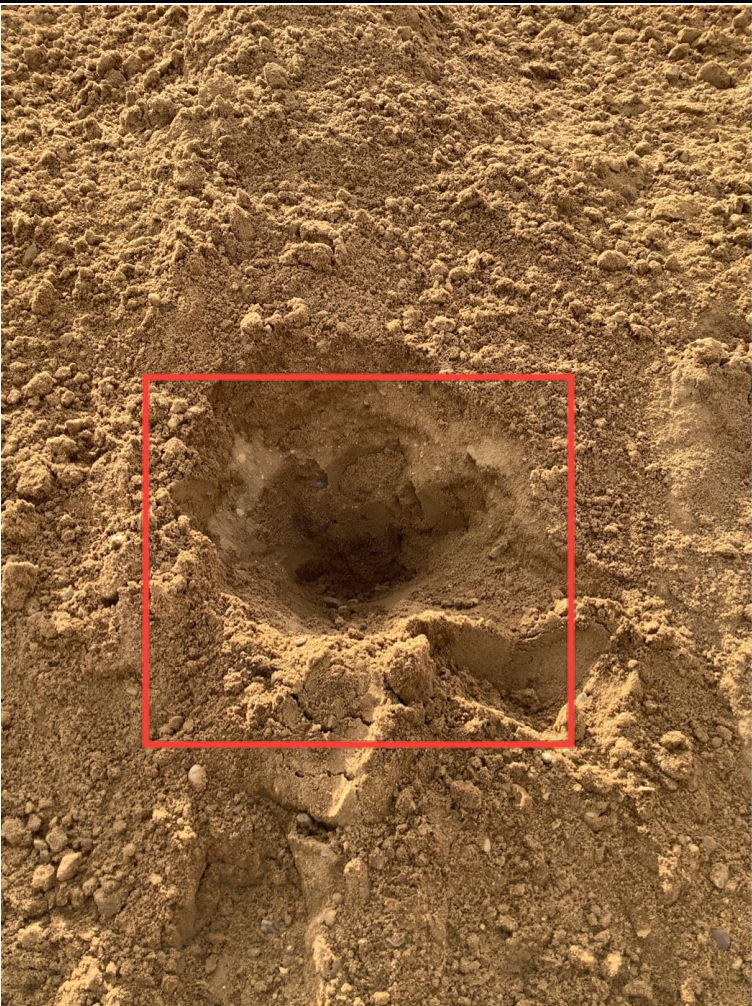

Photographic Log

					
Material: Steel	Volume:	Contents: Crude Oil	Material: Fiberglass	Volume:	Contents: Produced Water
Notes/Conditions: Facing West			Notes/Conditions: Facing North		

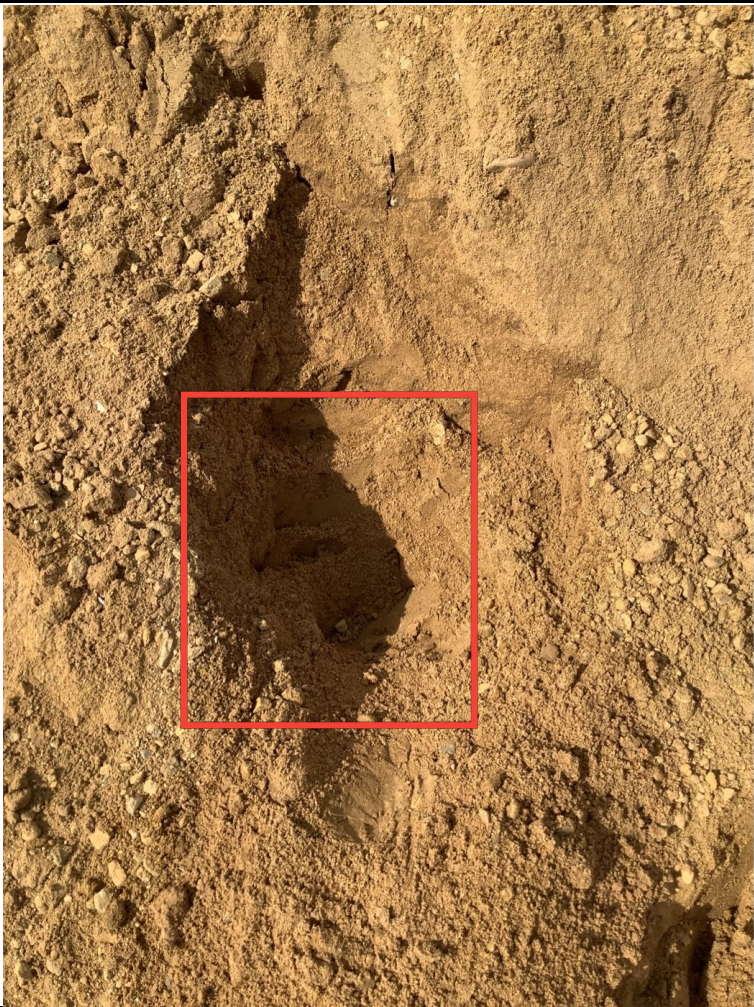

Photographic Log

					
Equipment ID: SS02@2.5'		Equipment Type: Partially Buried Vault	Equipment ID: SS03@2.5'		Equipment Type: Partially Buried Vault
Material: Fiberglass	Volume:	Contents: Produced Water	Material: Fiberglass	Volume:	Contents: Produced Water
Notes/Conditions: Facing East			Notes/Conditions: Facing East		

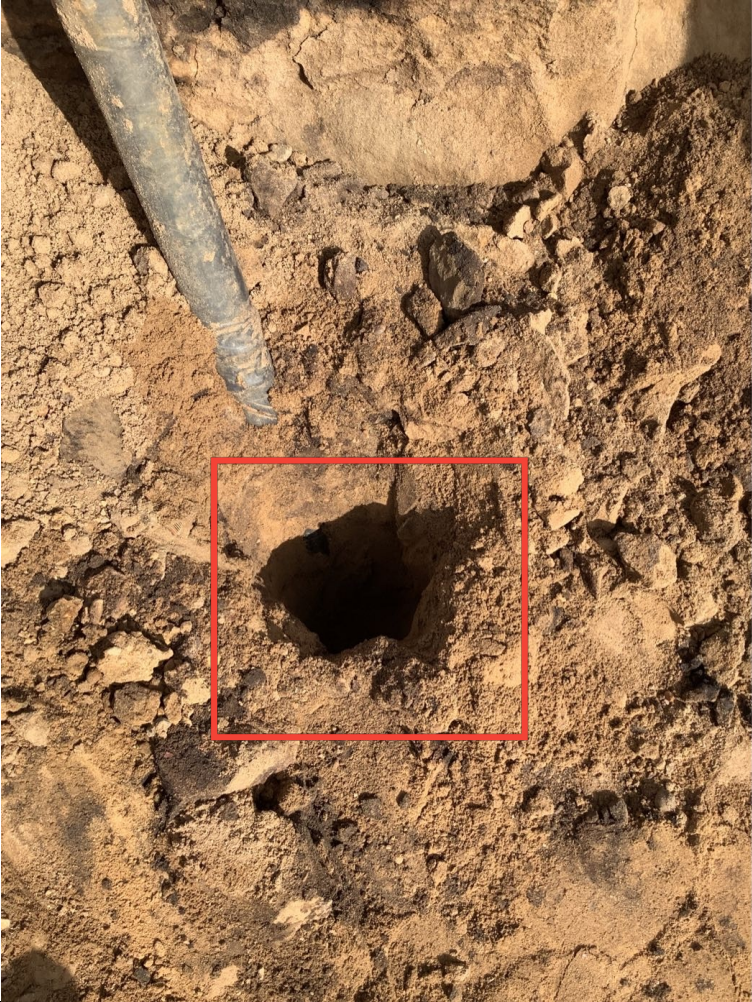

Photographic Log

					
Equipment ID: SS04@2.5'	Equipment Type: Partially Buried Vault		Equipment ID: SS05@2.5'	Equipment Type: Partially Buried Vault	
Material: Fiberglass	Volume:	Contents: Produced Water	Material: Fiberglass	Volume:	Contents: Produced Water
Notes/Conditions: Facing South			Notes/Conditions: Facing West		

Photographic Log

					
Equipment ID: SS06@2.5'		Equipment Type: Partially Buried Vault	Equipment ID: FS01@5'		Equipment Type: Partially Buried Vault
Material: Fiberglass	Volume:	Contents: Produced Water	Material: Fiberglass	Volume:	Contents: Produced Water
Notes/Conditions: Facing West			Notes/Conditions: Facing North		

Photographic Log

					
Equipment ID: SEP01-DL@3'		Equipment Type: Dump Line	Equipment ID: SEP01-FL@3'		Equipment Type: Flowline
Material: Steel	Volume:	Contents: Production Fluids	Material: Steel	Volume:	Contents: Production Fluids
Notes/Conditions: Facing North			Notes/Conditions: Facing North		

Photographic Log



Equipment ID: MH01@0.5'		Equipment Type: Meter House	
Material: Steel	Volume:	Contents:	
Notes/Conditions: Facing South			

Equipment ID: MH02@0.5'		Equipment Type: Meter House	
Material: Steel	Volume:	Contents:	
Notes/Conditions: Facing South			

Photographic Log


Equipment ID: Flare01 @0.5'		Equipment Type: Flare		Equipment ID: Flare02 @0.5'		Equipment Type: Flare	
Material: Steel	Volume:	Contents: Oil/Gas/Water		Material: Steel	Volume:	Contents: Oil/Gas/Water	
Notes/Conditions: Facing West				Notes/Conditions: Facing West			

Photographic Log

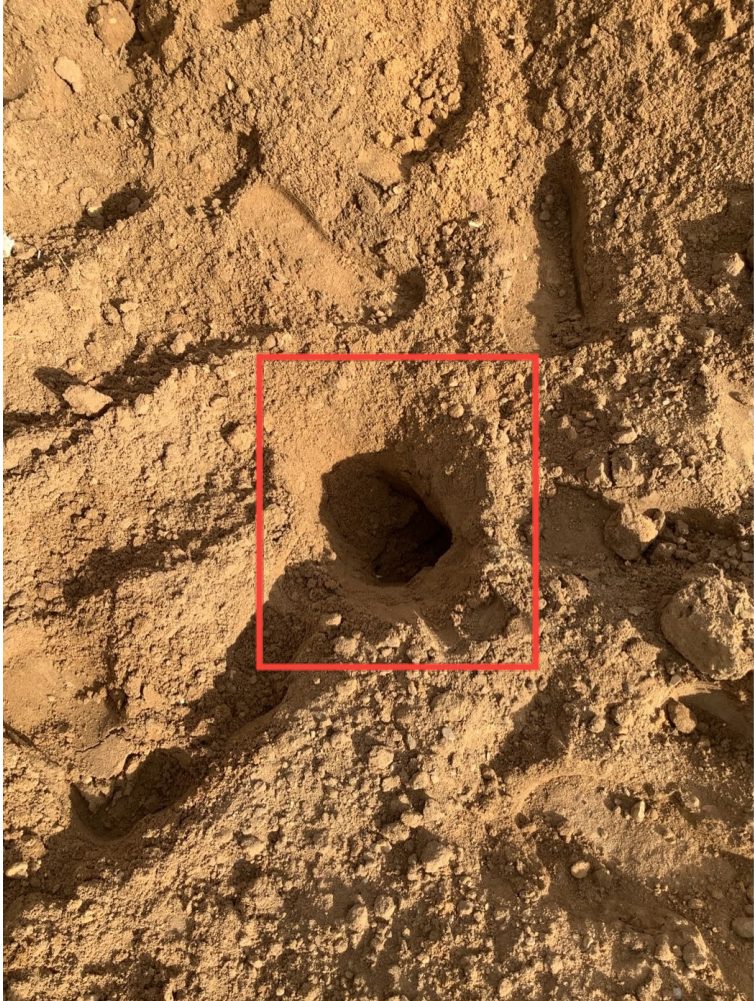
											
Equipment ID: FS02@5'		Equipment Type: Partially Buried Vault		Equipment ID:		Equipment Type:					
Material: Fiberglass		Volume:		Contents: Produced Water		Material:		Volume:		Contents:	
Notes/Conditions: Facing North						Notes/Conditions:					

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. - HSR-DANE 9-10

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude ¹	Longitude	PDOP
AST01@0.5'	10/24/23	0.8	No Staining	No Odor	Lab	40.24305563	-104.6542114	0.8
FLARE01@0.5'	10/24/23	0.2	No Staining	No Odor	Grab	40.24282402	-104.6543432	0.8
FLARE02@0.5'	10/24/23	0.1	No Staining	No Odor	Grab	40.24267771	-104.6542747	0.8
FS01@5'	10/24/23	0.8	No Staining	No Odor	Lab	40.24307130	-104.6542948	0.9
FS02@5'	10/24/23	0.2	No Staining	No Odor	Lab	40.24313413	-104.6542934	0.8
MH01@0.5'	10/24/23	0.1	No Staining	No Odor	Grab	40.24284100	-104.6541466	0.8
MH02@0.5'	10/24/23	0.3	No Staining	No Odor	Grab	40.24284402	-104.6541006	0.8
SEP01-DL@3'	10/24/23	3.0	No Staining	No Odor	Lab	40.24274411	-104.6542363	0.8
SEP01-FL@3'	10/24/23	3.0	No Staining	No Odor	Lab	40.24274857	-104.6542261	0.8
SS01@2.5'	10/24/23	1.1	No Staining	No Odor	Lab	40.24315704	-104.6542905	0.8
SS02@2.5'	10/24/23	0.4	No Staining	No Odor	Grab	40.24313066	-104.6542649	0.9
SS03@2.5'	10/24/23	0.1	No Staining	No Odor	Grab	40.24308420	-104.6542579	0.8
SS04@2.5'	10/24/23	0.4	No Staining	No Odor	Grab	40.24304984	-104.6542983	0.8
SS05@2.5'	10/24/23	0.2	No Staining	No Odor	Grab	40.24306749	-104.6543338	0.9
SS06@2.5'	10/24/23	0.2	No Staining	No Odor	Grab	40.24312567	-104.6543159	0.8

Notes:

PID = Photoionization detector

ppm = parts per million

PDOP = Position dilution of precision

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

TABLE 2
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - HSR-DANE 09-10

Soil Sample ID	Date	¹ Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^{1,2}		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^{1,2,3}		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
AST01@0.5	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FS01@5'	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FS02@5'	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-DL@3'	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-FL@3'	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS01@2.5'	10/24/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
SSR ^{1,2}		6 - 8.3	<6	<4mmhos/cm	2
AST01@0.5	10/24/23	5.91	0.0234	0.0457	<2.00
FS01@5'	10/24/23	5.64	0.0274	0.0168	<2.00
FS02@5'	10/24/23	6.27	0.0324	0.0197	<2.00
SEP01-DL@3'	10/24/23	4.59	0.0490	0.0524	<2.00
SEP01-FL@3'	10/24/23	4.89	0.0454	0.0485	<2.00
SS01@2.5'	10/24/23	8.22	0.128	0.127	<2.00

Soil Sample ID	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
Residential SSL ^{1,2}		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL ^{1,2,3}		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
AST01@0.5	10/24/23	1.68	43.5	<0.200	<0.30	5.12	4.81	3.00	<0.260	<0.0200	14.7
FS01@5'	10/24/23	1.23	30.7	<0.200	<0.30	2.32	4.11	1.90	<0.260	<0.0200	8.60
FS02@5'	10/24/23	1.16	33.3	<0.200	<0.30	2.41	3.74	1.93	<0.260	<0.0200	9.39
SEP01-DL@3'	10/24/23	0.920	27.4	<0.200	<0.30	2.26	4.67	1.65	<0.260	<0.0200	9.88
SEP01-FL@3'	10/24/23	0.986	27.5	<0.200	<0.30	2.49	4.11	1.71	<0.260	<0.0200	9.80
SS01@2.5'	10/24/23	1.32	36.1	<0.200	<0.30	2.45	3.94	2.08	<0.260	<0.0200	9.39

Notes:

- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) and Soil Suitability for Reclamation (SSR) standards referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

ECMC = Energy and Carbon Management Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

< = Analytical result is less than the indicated laboratory reporting limit

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

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benzo(a) = Benzo(a)anthracene

Benzo(b) = Benzo(b)fluoranthene

Benzo(k) = Benzo(k)fluoranthene

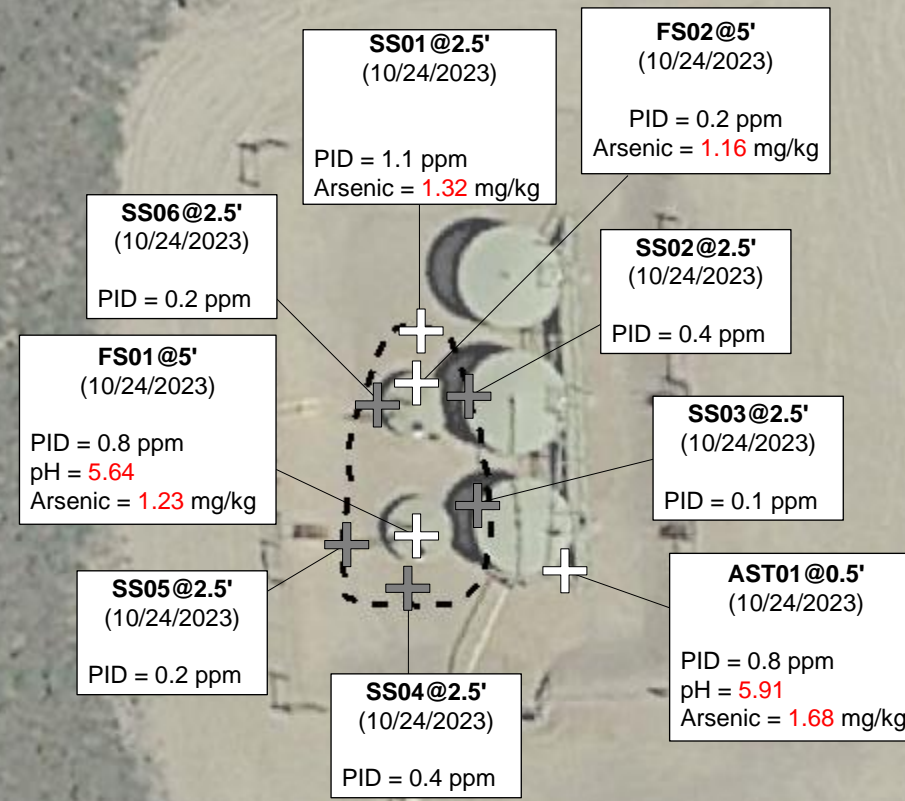
Benzo(a) = Benzo(a)pyrene

A,H = Dibenzo(a,h)anthracene

1,2,3-CD = Indeno(1,2,3-cd)pyrene

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene



Legend

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

Notes

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

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

0 ft. 30 ft. 60 ft.

Image Source: Google Earth; Google 2020

DATE: 11/20/2023
 DESIGNED BY: JW
 DRAWN BY: EB

TASMAN GEOSCIENCES
 Tasman Geosciences, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
HSR-Dane 09-10
 NESW, Section 10, Township 3 North, Range 65 West
 Weld County, Colorado

Tank Battery Closure & Soil
 Analytical Results Map
 (10/24/2023)

FIGURE 1

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 20, 2023

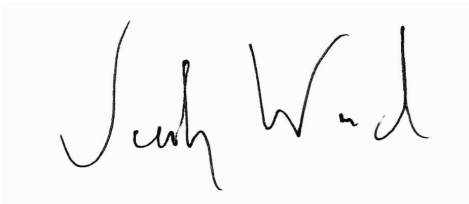
Jacob Whritenour
Tasman Geosciences
6855 W. 119th Ave.
Broomfield, CO 80020

RE: Noble - HSR Dane 09-10

Work Order #2310466

Enclosed are the results of analyses for samples received by Summit Scientific on 10/24/23 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long horizontal stroke at the end.

Jacob Wood For Ben Shrewsbury
Laboratory Manager



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

Project: Noble - HSR Dane 09-10
Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@0.5	2310466-01	Soil	10/24/23 10:38	10/24/23 17:30
SS01@2.5'	2310466-02	Soil	10/24/23 10:40	10/24/23 17:30
FS01@5'	2310466-08	Soil	10/24/23 10:47	10/24/23 17:30
FS02@5'	2310466-09	Soil	10/24/23 10:49	10/24/23 17:30
SEP01-DL@3'	2310466-10	Soil	10/24/23 10:14	10/24/23 17:30
SEP01-FL@3'	2310466-11	Soil	10/24/23 10:09	10/24/23 17:30

Summit Scientific

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

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2310466	

Client: Noble / Tasman		Project Manager: Jake Whritenour		Company: Chevron	
Address: 6855 W. 119th Ave		E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: HSR-Danc 09-10	
City/State/Zip: Broomfield, CO 80020		Project Name: HSR - Danc 09-10		AFE#: UWRWE-A3231-ABN	
Phone: 303-903-5168		Project Number:		PO/Billing Codes:	
Sampler Name: Dalton Hagen				Contact: Miguel Barron	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	Metals - 915		HOLD	
1	AST01e0.5	10/24/23	1038	3			X			X			X	X	X	X	X	X	X		pH, EC, SAR by saturated paste
2	SS01e2.5'		1040										X	X	X	X	X	X			
3	SS02e2.5'		1042																	X	
4	SS03e2.5'		1043																	X	
5	SS04e2.5'		1044																	X	
6	SS05e2.5'		1045																	X	
7	SS06e2.5'		1046																	X	
8	FS01eS'		1047										X	X	X	X	X	X			
9	FS02eS'		1049																		
10	SEP01-OLE3'		1014																		
11	SEP01-FLE3'		1009																		
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time: 10/24/23 1345	Received by: Tasman Lockbox	Date/Time: 10/24/23 1345	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 10/24/23 1730	Received by:	Date/Time: 10/24/23 1730	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 13.4	Corrected Temperature: 6	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2310466

Client: Noblefascman

Client Project ID: HSR-Dane 09-10

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #: _____

Matrix (Check all that apply)

Air

Soil/Solid

Water

Other

Temp (°C)

13.4

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.	-			
If custody seals are present, are they intact? ⁽¹⁾	-			OK
Are samples due within 48 hours present?		-		
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		-		
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	-			
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	-			
Were all samples received intact? ⁽¹⁾	✓			
Was adequate sample volume provided? ⁽¹⁾	✓			
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	✓			
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
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.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

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

AS

Custodian Printed Name

10/24/23

Date/Time

11/15



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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

AST01@0.5
2310466-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0307	76.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0460	115 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.5	92.1 %		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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

AST01@0.5
2310466-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0199	59.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:38**

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

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

AST01@0.5
2310466-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.68	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B
Barium	43.5	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.12	0.400	"	"	"	"	"	"
Lead	4.81	0.200	"	"	"	"	"	"
Nickel	3.00	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	14.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	66.4	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	15.9	0.0500	"	"	"	"	"	"	
Sodium	0.817	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0234	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

AST01@0.5
2310466-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:38**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.5			%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0457	0.0100		mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

Summit Scientific



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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN

Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

AST01@0.5
2310466-01 (Soil)


Summit Scientific

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

Date Sampled: **10/24/23 10:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	5.91		pH Units	1	BGK0578	10/31/23	11/15/23	EPA 9045D	

Summit Scientific



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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SS01@2.5'
2310466-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0287	71.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0486	121 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0443	111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.6	101 %		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 - HSR Dane 09-10
Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SS01@2.5'
2310466-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0198	59.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0196	58.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:40**

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

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SS01@2.5'
2310466-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.32	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B	
Barium	36.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.45	0.400	"	"	"	"	"	"	
Lead	3.94	0.200	"	"	"	"	"	"	
Nickel	2.08	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.39	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.1	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	9.43	0.0500	"	"	"	"	"	"	
Sodium	3.06	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.128	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SS01@2.5'
2310466-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:40**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.4			%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.127	0.0100		mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

Summit Scientific



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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
 Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

SS01@2.5'
2310466-02 (Soil)


Summit Scientific

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

Date Sampled: **10/24/23 10:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.22		pH Units	1	BGK0578	10/31/23	11/15/23	EPA 9045D	

Summit Scientific



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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS01@5'
2310466-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0266	66.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0498	124 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0451	113 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:47**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS01@5'
2310466-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0179	53.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:47**

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

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

Project: Noble - HSR Dane 09-10
Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS01@5'
2310466-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.23	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B	
Barium	30.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.32	0.400	"	"	"	"	"	"	
Lead	4.11	0.200	"	"	"	"	"	"	
Nickel	1.90	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.60	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	51.2	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	12.3	0.0500	"	"	"	"	"	"	
Sodium	0.840	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0274	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS01@5'
2310466-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.1		%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0168	0.0100	mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

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

Date Sampled: **10/24/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.64		pH Units	1	BGJ1228	10/31/23	10/31/23	EPA 9045D	

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS02@5'
2310466-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0266	66.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0496	124 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0442	110 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.2	97.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Noble - HSR Dane 09-10
Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS02@5'
2310466-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0190	56.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	56.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:49**

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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS02@5'
2310466-09 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.16	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B	
Barium	33.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.41	0.400	"	"	"	"	"	"	
Lead	3.74	0.200	"	"	"	"	"	"	
Nickel	1.93	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.39	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.1	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	20.4	0.0500	"	"	"	"	"	"	
Sodium	1.25	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0324	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

FS02@5'
2310466-09 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.8		%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0197	0.0100	mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

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

Date Sampled: **10/24/23 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.27		pH Units	1	BGJ1228	10/31/23	10/31/23	EPA 9045D	

Summit Scientific

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-DL@3'
2310466-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0260	65.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0504	126 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0446	111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.8	94.2 %		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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-DL@3'
2310466-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0185	55.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0184	55.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:14**

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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-DL@3'
2310466-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.920	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B	
Barium	27.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.26	0.400	"	"	"	"	"	"	
Lead	4.67	0.200	"	"	"	"	"	"	
Nickel	1.65	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.88	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.7	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	4.33	0.0500	"	"	"	"	"	"	
Sodium	0.905	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0490	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
 Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

SEP01-DL@3'
2310466-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:14**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.7			%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0524	0.0100		mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

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

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
 Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

SEP01-DL@3'
2310466-10 (Soil)

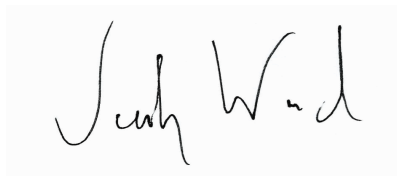
Summit Scientific

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

Date Sampled: **10/24/23 10:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	4.59		pH Units	1	BGK0578	10/31/23	11/15/23	EPA 9045D	

Summit Scientific



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

Project: Noble - HSR Dane 09-10
Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-FL@3'
2310466-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGJ1011	10/25/23	10/26/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0286	71.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0475	119 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	106 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGJ1014	10/25/23	10/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.9	111 %		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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-FL@3'
2310466-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0972	10/25/23	10/26/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	58.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0204	61.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGK0028	11/01/23	11/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/24/23 10:09**

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 - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-FL@3'
2310466-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.986	0.200	mg/kg dry	1	BGK0062	11/02/23	11/06/23	EPA 6020B	
Barium	27.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.49	0.400	"	"	"	"	"	"	
Lead	4.11	0.200	"	"	"	"	"	"	
Nickel	1.71	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.80	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ1117	10/27/23	10/27/23	EPA 7196A	

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

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	23.9	0.0500	mg/L dry	1	BGJ1202	10/30/23	11/07/23	EPA 6020B	
Magnesium	4.94	0.0500	"	"	"	"	"	"	
Sodium	0.934	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0454	0.00100	units	1	BGK0219	11/07/23	11/07/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

SEP01-FL@3'
2310466-11 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/24/23 10:09**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.9			%	1	BGK0032	11/01/23	11/02/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0485	0.0100		mmhos/cm	1	BGJ1227	10/31/23	10/31/23	EPA 120.1	

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
 Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

SEP01-FL@3'
2310466-11 (Soil)


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

Date Sampled: **10/24/23 10:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	4.89		pH Units	1	BGK0578	10/31/23	11/15/23	EPA 9045D	

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGJ1011 - EPA 5030 Soil MS

Blank (BGJ1011-BLK1)

Prepared: 10/25/23 Analyzed: 10/26/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0326		"	0.0400		81.4	50-150			
<i>Surrogate: Toluene-d8</i>	0.0477		"	0.0400		119	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0455		"	0.0400		114	50-150			

LCS (BGJ1011-BS1)

Prepared: 10/25/23 Analyzed: 10/26/23

Benzene	0.112	0.0020	mg/kg	0.100		112	70-130			
Toluene	0.148	0.0050	"	0.100		148	70-130			QLCS-01
Ethylbenzene	0.119	0.0050	"	0.100		119	70-130			
m,p-Xylene	0.245	0.010	"	0.200		122	70-130			
o-Xylene	0.107	0.0050	"	0.100		107	70-130			
1,2,4-Trimethylbenzene	0.116	0.0050	"	0.100		116	70-130			
1,3,5-Trimethylbenzene	0.120	0.0050	"	0.100		120	70-130			
Naphthalene	0.101	0.0038	"	0.100		101	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0324		"	0.0400		81.0	50-150			
<i>Surrogate: Toluene-d8</i>	0.0466		"	0.0400		116	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0406		"	0.0400		101	50-150			

Matrix Spike (BGJ1011-MS1)

Source: 2310450-01

Prepared: 10/25/23 Analyzed: 10/26/23

Benzene	0.108	0.0020	mg/kg	0.100	ND	108	70-130			
Toluene	0.137	0.0050	"	0.100	ND	137	70-130			QLCS-01
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
m,p-Xylene	0.230	0.010	"	0.200	ND	115	70-130			
o-Xylene	0.0980	0.0050	"	0.100	ND	98.0	70-130			
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
Naphthalene	0.0888	0.0038	"	0.100	ND	88.8	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0369		"	0.0400		92.2	50-150			
<i>Surrogate: Toluene-d8</i>	0.0458		"	0.0400		114	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0397		"	0.0400		99.2	50-150			

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6855 W. 119th Ave.
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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGJ1011 - EPA 5030 Soil MS

Matrix Spike Dup (BGJ1011-MSD1)	Source: 2310450-01			Prepared: 10/25/23		Analyzed: 10/26/23				
Benzene	0.111	0.0020	mg/kg	0.100	ND	111	70-130	2.95	30	
Toluene	0.141	0.0050	"	0.100	ND	141	70-130	2.78	30	QLCS-01
Ethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130	4.08	30	
m,p-Xylene	0.236	0.010	"	0.200	ND	118	70-130	2.68	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	3.81	30	
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	2.54	30	
1,3,5-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	2.57	30	
Naphthalene	0.0854	0.0038	"	0.100	ND	85.4	70-130	3.93	30	
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0400		91.8	50-150			
Surrogate: Toluene-d8	0.0455		"	0.0400		114	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGJ1014 - EPA 3550A

Blank (BGJ1014-BLK1)

Prepared: 10/25/23 Analyzed: 10/27/23

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

LCS (BGJ1014-BS1)

Prepared: 10/25/23 Analyzed: 10/27/23

C10-C28 (DRO)	454	50	mg/kg	500		90.8	70-130				
Surrogate: <i>o</i> -Terphenyl	11.5		"	12.5		92.3	30-150				

Matrix Spike (BGJ1014-MS1)

Source: 2310450-01

Prepared: 10/25/23 Analyzed: 10/27/23

C10-C28 (DRO)	439	50	mg/kg	500	ND	87.8	70-130				
Surrogate: <i>o</i> -Terphenyl	11.1		"	12.5		88.8	30-150				

Matrix Spike Dup (BGJ1014-MSD1)

Source: 2310450-01

Prepared: 10/25/23 Analyzed: 10/27/23

C10-C28 (DRO)	467	50	mg/kg	500	ND	93.5	70-130	6.22	20		
Surrogate: <i>o</i> -Terphenyl	11.8		"	12.5		94.7	30-150				

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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 BGJ0972 - EPA 5030 Soil MS

Blank (BGJ0972-BLK1)

Prepared: 10/25/23 Analyzed: 10/26/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0300</i>		<i>"</i>	<i>0.0333</i>		<i>90.1</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0330</i>		<i>"</i>	<i>0.0333</i>		<i>99.1</i>		<i>40-150</i>		

LCS (BGJ0972-BS1)

Prepared: 10/25/23 Analyzed: 10/26/23

Acenaphthene	0.0277	0.00500	mg/kg	0.0333		83.2		31-137		
Anthracene	0.0317	0.00500	"	0.0333		95.2		30-120		
Benzo (a) anthracene	0.0357	0.00500	"	0.0333		107		30-120		
Benzo (a) pyrene	0.0303	0.00500	"	0.0333		91.0		30-120		
Benzo (b) fluoranthene	0.0302	0.00500	"	0.0333		90.5		30-120		
Benzo (k) fluoranthene	0.0266	0.00500	"	0.0333		79.7		30-120		
Chrysene	0.0302	0.00500	"	0.0333		90.5		30-120		
Dibenz (a,h) anthracene	0.0288	0.00500	"	0.0333		86.3		30-120		
Fluoranthene	0.0321	0.00500	"	0.0333		96.4		30-120		
Fluorene	0.0282	0.00500	"	0.0333		84.6		30-120		
Indeno (1,2,3-cd) pyrene	0.0228	0.00500	"	0.0333		68.4		30-120		
Pyrene	0.0294	0.00500	"	0.0333		88.1		35-142		
1-Methylnaphthalene	0.0310	0.00500	"	0.0333		92.9		35-142		
2-Methylnaphthalene	0.0300	0.00500	"	0.0333		89.9		35-142		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0308</i>		<i>"</i>	<i>0.0333</i>		<i>92.3</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0318</i>		<i>"</i>	<i>0.0333</i>		<i>95.5</i>		<i>40-150</i>		

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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 BGJ0972 - EPA 5030 Soil MS

Matrix Spike (BGJ0972-MS1)	Source: 2310449-21			Prepared: 10/25/23 Analyzed: 10/26/23						
Acenaphthene	0.0145	0.00500	mg/kg	0.0333	ND	43.6	31-137			
Anthracene	0.0176	0.00500	"	0.0333	ND	52.9	30-120			
Benzo (a) anthracene	0.0202	0.00500	"	0.0333	ND	60.5	30-120			
Benzo (a) pyrene	0.0154	0.00500	"	0.0333	ND	46.2	30-120			
Benzo (b) fluoranthene	0.0153	0.00500	"	0.0333	ND	45.8	30-120			
Benzo (k) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.0	30-120			
Chrysene	0.0180	0.00500	"	0.0333	ND	54.0	30-120			
Dibenz (a,h) anthracene	0.0145	0.00500	"	0.0333	ND	43.6	30-120			
Fluoranthene	0.0172	0.00500	"	0.0333	ND	51.5	30-120			
Fluorene	0.0141	0.00500	"	0.0333	ND	42.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0145	0.00500	"	0.0333	ND	43.5	30-120			
Pyrene	0.0164	0.00500	"	0.0333	ND	49.2	35-142			
1-Methylnaphthalene	0.0198	0.00500	"	0.0333	ND	59.4	15-130			
2-Methylnaphthalene	0.0186	0.00500	"	0.0333	ND	55.8	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0200</i>		<i>"</i>	<i>0.0333</i>		<i>59.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0176</i>		<i>"</i>	<i>0.0333</i>		<i>52.7</i>	<i>40-150</i>			

Matrix Spike Dup (BGJ0972-MSD1)	Source: 2310449-21			Prepared: 10/25/23 Analyzed: 10/26/23						
Acenaphthene	0.0147	0.00500	mg/kg	0.0333	ND	44.1	31-137	1.05	30	
Anthracene	0.0193	0.00500	"	0.0333	ND	57.9	30-120	9.12	30	
Benzo (a) anthracene	0.0222	0.00500	"	0.0333	ND	66.6	30-120	9.57	30	
Benzo (a) pyrene	0.0184	0.00500	"	0.0333	ND	55.2	30-120	17.8	30	
Benzo (b) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.1	30-120	20.3	30	
Benzo (k) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	22.7	30	
Chrysene	0.0196	0.00500	"	0.0333	ND	58.7	30-120	8.35	30	
Dibenz (a,h) anthracene	0.0177	0.00500	"	0.0333	ND	53.2	30-120	19.8	30	
Fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	30-120	13.6	30	
Fluorene	0.0173	0.00500	"	0.0333	ND	51.8	30-120	19.9	30	
Indeno (1,2,3-cd) pyrene	0.0188	0.00500	"	0.0333	ND	56.3	30-120	25.7	30	
Pyrene	0.0185	0.00500	"	0.0333	ND	55.4	35-142	11.9	30	
1-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.8	15-130	4.47	50	
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.9	15-130	1.66	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0202</i>		<i>"</i>	<i>0.0333</i>		<i>60.7</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0198</i>		<i>"</i>	<i>0.0333</i>		<i>59.4</i>	<i>40-150</i>			

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6855 W. 119th Ave.
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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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

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

Batch BGK0028 - EPA 3050B

Blank (BGK0028-BLK1)

Prepared: 11/01/23 Analyzed: 11/07/23

Boron ND 2.00 mg/L

LCS (BGK0028-BS1)

Prepared: 11/01/23 Analyzed: 11/07/23

Boron 5.74 2.00 mg/L 5.00 115 80-120

Duplicate (BGK0028-DUP1)

Source: 2310449-01

Prepared: 11/01/23 Analyzed: 11/07/23

Boron 0.115 2.00 mg/L 0.129 11.3 20

Matrix Spike (BGK0028-MS1)

Source: 2310449-01

Prepared: 11/01/23 Analyzed: 11/07/23

Boron 5.47 2.00 mg/L 5.00 0.129 107 75-125

Matrix Spike Dup (BGK0028-MSD1)

Source: 2310449-01

Prepared: 11/01/23 Analyzed: 11/07/23

Boron 6.15 2.00 mg/L 5.00 0.129 121 75-125 11.8 25

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGK0062 - EPA 3050B

Blank (BGK0062-BLK1)

Prepared: 11/02/23 Analyzed: 11/06/23

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

LCS (BGK0062-BS1)

Prepared: 11/02/23 Analyzed: 11/06/23

Arsenic	44.4	0.200	mg/kg wet	40.0		111	80-120
Barium	41.9	0.400	"	40.0		105	80-120
Cadmium	1.92	0.200	"	2.00		96.0	80-120
Copper	41.3	0.400	"	40.0		103	80-120
Lead	20.0	0.200	"	20.0		100	80-120
Nickel	41.4	0.400	"	40.0		104	80-120
Silver	1.97	0.0200	"	2.00		98.5	80-120
Zinc	41.0	0.400	"	40.0		102	80-120
Selenium	4.18	0.260	"	4.00		104	80-120

Duplicate (BGK0062-DUP1)

Source: 2310460-01

Prepared: 11/02/23 Analyzed: 11/06/23

Arsenic	3.26	0.200	mg/kg dry	2.96		9.65	20
Barium	187	0.400	"	198		6.04	20
Cadmium	0.220	0.200	"	0.245		10.5	20
Copper	6.40	0.400	"	6.49		1.50	20
Lead	9.80	0.200	"	10.0		2.44	20
Nickel	6.45	0.400	"	7.04		8.76	20
Silver	0.0358	0.0200	"	0.0389		8.33	20
Zinc	23.0	0.400	"	23.0		0.214	20
Selenium	ND	0.260	"	ND			20

Summit Scientific

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Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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 BGK0062 - EPA 3050B

Matrix Spike (BGK0062-MS1)

Source: 2310460-01

Prepared: 11/02/23 Analyzed: 11/06/23

Arsenic	54.9	0.200	mg/kg dry	51.9	2.96	100	75-125				
Barium	221	0.400	"	51.9	198	43.1	75-125				QM-07
Cadmium	2.57	0.200	"	2.60	0.245	89.7	75-125				
Copper	35.1	0.400	"	51.9	6.49	55.1	75-125				QM-07
Lead	32.7	0.200	"	26.0	10.0	87.4	75-125				
Nickel	35.8	0.400	"	51.9	7.04	55.4	75-125				QM-07
Silver	2.40	0.0200	"	2.60	0.0389	91.0	75-125				
Zinc	52.2	0.400	"	51.9	23.0	56.2	75-125				QM-07
Selenium	6.21	0.260	"	5.19	ND	120	75-125				

Matrix Spike Dup (BGK0062-MSD1)

Source: 2310460-01

Prepared: 11/02/23 Analyzed: 11/06/23

Arsenic	52.9	0.200	mg/kg dry	51.9	2.96	96.2	75-125	3.65	25		
Barium	216	0.400	"	51.9	198	32.9	75-125	2.44	25		QM-07
Cadmium	2.50	0.200	"	2.60	0.245	86.8	75-125	2.95	25		
Copper	35.3	0.400	"	51.9	6.49	55.4	75-125	0.495	25		QM-07
Lead	32.0	0.200	"	26.0	10.0	84.6	75-125	2.31	25		
Nickel	35.8	0.400	"	51.9	7.04	55.4	75-125	0.00726	25		QM-07
Silver	2.38	0.0200	"	2.60	0.0389	90.2	75-125	0.891	25		
Zinc	52.5	0.400	"	51.9	23.0	56.8	75-125	0.669	25		QM-07
Selenium	6.30	0.260	"	5.19	ND	121	75-125	1.34	25		

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGJ1117 - 3060A Mod

Blank (BGJ1117-BLK1)

Prepared & Analyzed: 10/27/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGJ1117-BS1)

Prepared & Analyzed: 10/27/23

Chromium, Hexavalent 24.4 0.30 mg/kg wet 25.0 97.6 80-120

Duplicate (BGJ1117-DUP1)

Source: 2310450-01

Prepared & Analyzed: 10/27/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGJ1117-MS1)

Source: 2310450-01

Prepared & Analyzed: 10/27/23

Chromium, Hexavalent 31.7 0.30 mg/kg dry 33.4 ND 95.0 75-125

Matrix Spike Dup (BGJ1117-MSD1)

Source: 2310450-01

Prepared & Analyzed: 10/27/23

Chromium, Hexavalent 31.7 0.30 mg/kg dry 33.4 ND 95.0 75-125 0.00 20

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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

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

Batch BGJ1202 - General Preparation

Blank (BGJ1202-BLK1)

Prepared: 10/30/23 Analyzed: 11/07/23

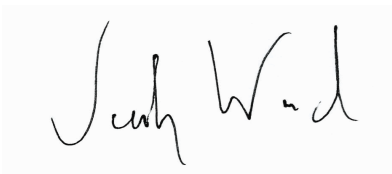
Calcium	ND	0.0500	mg/L wet						
Magnesium	ND	0.0500	"						
Sodium	ND	0.0500	"						

LCS (BGJ1202-BS1)

Prepared: 10/30/23 Analyzed: 11/07/23

Calcium	5.32	0.0500	mg/L wet	5.00	106	70-130			
Magnesium	5.66	0.0500	"	5.00	113	70-130			
Sodium	5.39	0.0500	"	5.00	108	70-130			

Summit Scientific



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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
 Project Manager: Jacob Whritenour

Reported:
 11/20/23 14:23

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

Summit Scientific

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

Batch BGK0032 - General Preparation

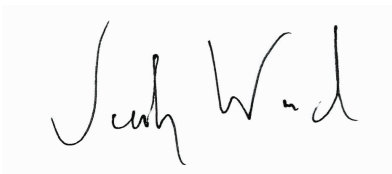
Duplicate (BGK0032-DUP1)

Source: 2309512-01

Prepared: 11/01/23 Analyzed: 11/02/23

% Solids	92.0		%		91.6			0.373	20	
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Summit Scientific



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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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

Summit Scientific

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

Batch BGJ1227 - General Preparation

Blank (BGJ1227-BLK1)

Prepared & Analyzed: 10/31/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGJ1227-BS1)

Prepared & Analyzed: 10/31/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BGJ1227-DUP1)

Source: 2310466-01

Prepared & Analyzed: 10/31/23

Specific Conductance (EC) 0.0449 0.0100 mmhos/cm 0.0457 1.68 20

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

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

Summit Scientific

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

Batch BGJ1228 - General Preparation

LCS (BGJ1228-BS1)

Prepared & Analyzed: 10/31/23

pH	9.02		pH Units	9.18		98.3	95-105		
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Duplicate (BGJ1228-DUP1)

Source: 2310466-01

Prepared & Analyzed: 10/31/23

pH	5.68		pH Units			5.86		3.12	20
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Batch BGK0578 - General Preparation

LCS (BGK0578-BS1)

Prepared & Analyzed: 11/15/23

pH	9.20		pH Units	9.18		100	95-105		
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Duplicate (BGK0578-DUP1)

Source: 2310388-01

Prepared & Analyzed: 11/15/23

pH	8.69		pH Units			8.74		0.574	20
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Summit Scientific

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Project: Noble - HSR Dane 09-10

Project Number: UWRWE-A3231ABN
Project Manager: Jacob Whritenour

Reported:
11/20/23 14:23

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QLCS-01 The spike recovery was outside acceptance limits for this analyte indicating a potential high bias. The corresponding samples did not exhibit concentrations above reporting level for this analyte. Data quality is not affected.
- 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