

Flowline Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

| <i>Additional Attachments:</i> | | Tank Battery Closure | | Wellhead Closure | | Pit Closure | | Partially Buried Vault Closure | |
|--|----------------------|-------------------------------------|--|------------------|--|-------------------------------------|--|--------------------------------|--|
| <i>Site Name & COGCC Facility Number:</i> HSR-Tudor 11-31A | | <i>Date:</i> 06/12/2023, 06/14/2023 | | | | <i>Remediation Project #:</i> 27627 | | | |
| <i>Associated Wells:</i> | | <i>Age of Site:</i> | | | | <i>Number of Photos Attached:</i> 6 | | | |
| <i>Starting point: (GPS coordinates and descriptions)</i> 40.266303 -104.710912 | | | | | | | | | |
| <i>End point: (GPS coordinates and descriptions)</i> 40.267137 -104.708507 | | | | | | | | | |
| <i>USCS Soil Type:</i> Well Graded Sand - SW | | | | | <i>Estimated Depth to Groundwater:</i> >5' | | | | |
| <i>Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i> None observed | | | | | | | | | |
| <i>Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i> None observed | | | | | | | | | |
| Flowlines | | | | | | | | | |
| <i>Flowline type</i> | <i>Oil/Water/Gas</i> | | | | | | | | |
| <i>Depth</i> | 5' | | | | | | | | |
| <i>Age</i> | | | | | | | | | |
| <i>Length</i> | 737' | | | | | | | | |
| <i>Construction Material</i> | Steel | | | | | | | | |
| <i>Were flowlines pulled?</i> | Yes | | | | | | | | |
| <i>Visual Integrity of lines</i> | NA | | | | | | | | |
| <i>Visual impacts if trenched</i> | NA | | | | | | | | |
| <i>PID Readings if trenched</i> | 0.0-0.5 | | | | | | | | |
| <i>Sample taken? Location/Sample ID#</i> | Yes, see below | | | | | | | | |
| <i>Photo Number(s)</i> | 1 - 6 | | | | | | | | |
| <i>Other observations regarding on location flowlines:</i> Samples taken at the wellhead and the separator (FL01-A@4' & FL01-B@4') as well as along the flowline path (FL01-C@4' through FL01-F@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> 6 | | | | | <i>Total number of samples collected:</i> 6 | | | | |
| <i>Highest PID Reading:</i> 0.5 | | | | | <i>Total number of samples submitted to lab for analysis:</i> 2 | | | | |
| <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> | | | | | | | | | |



| | | | | | | | |
|--------------------------------------|----------------|---------------------------------|--|--------------------------------------|----------------|---------------------------------|--|
| Equipment ID: FL01-B@4' | | Equipment Type: Flowline | | Equipment ID: FL01-A@4' | | Equipment Type: Flowline | |
| Material: Steel | Volume: | Contents: Oil/Gas/Water | | Material: Steel | Volume: | Contents: Oil/Gas/Water | |
| Notes/Conditions: Facing west | | | | Notes/Conditions: Facing east | | | |

Photographic Log

| | | | | | | | | | | | |
|---|--|----------------|--|--|--|--------------------------------------|--|---------------------------------|--------------------------------|--------------------------------|--|
|  | | |  | | | | | | | | |
| | | | | | | Equipment ID: FL01-C@4' | | Equipment Type: Flowline | | Equipment ID: FL01-D@4' | |
| Material: Steel | | Volume: | Contents: Oil/Gas/Water | | | Material: Steel | | Volume: | Contents: Oil/Gas/Water | | |
| Notes/Conditions: Facing east | | | | | | Notes/Conditions: Facing east | | | | | |

Photographic Log


Equipment ID: FL01-E@4'

Equipment Type: Flowline

Material: Steel

Volume:
Contents: Oil/Gas/Water

Notes/Conditions:

Equipment ID: FL01-F@5'

Equipment Type: Flowline

Material: Steel

Volume:
Contents: Oil/Gas/Water

Notes/Conditions:

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. HSR-TUDOR 11-31A

| Soil Sample ID | Date | PID (ppm) | Visual | Olfactory | Sample Type (Grab/Lab) | Latitude ¹ | Longitude | PDOP |
|----------------|----------|-----------|-------------|-----------|------------------------|-----------------------|-------------|------|
| FL01-A@4' | 06/12/23 | 0.0 | No Staining | No Odor | Lab | -104.7085236 | 40.26713962 | 0.9 |
| FL01-B@4' | 06/12/23 | 0.0 | No Staining | No Odor | Lab | -104.7109294 | 40.26630616 | 0.9 |
| FL01-C@5' | 06/14/23 | 0.3 | No Staining | No Odor | Grab | -104.7090979 | 40.26692858 | 0.9 |
| FL01-D@4' | 06/14/23 | 0.1 | No Staining | No Odor | Grab | -104.7096303 | 40.26674164 | 1.0 |
| FL01-E@4' | 06/14/23 | 0.5 | No Staining | No Odor | Grab | -104.7101112 | 40.26657834 | 1.0 |
| FL01-F@5' | 06/14/23 | 0.3 | No Staining | No Odor | Grab | -104.7106070 | 40.26639123 | 1.1 |

Notes:

PID = Photoionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

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-TUDOR 11-31A

| 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 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 ^{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 |
| FL01-A@4' | 6/12/2023 | <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 |
| FL01-B@4' | 6/12/2023 | <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) |
|------------------------------|-----------|---------|-------|---------------|--------------|
| Residential SSL ² | | 6 - 8.3 | <6 | <4mmhos/cm | 2 |
| FL01-A@4' | 6/12/2023 | 7.63 | 0.343 | 0.311 | 0.159 |
| FL01-B@4' | 6/12/2023 | 5.29 | 0.106 | 0.0917 | 0.0759 |

Notes:

- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) 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:

COGCC = Colorado Oil and Gas Conservation 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 COGCC Table 915-1 standard

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

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

Benz(a) = Benzo(a)anthracene

Benzo(b) = Benzo(b)fluoranthene

Benzo(k) = Benzo(k)fluoranthene

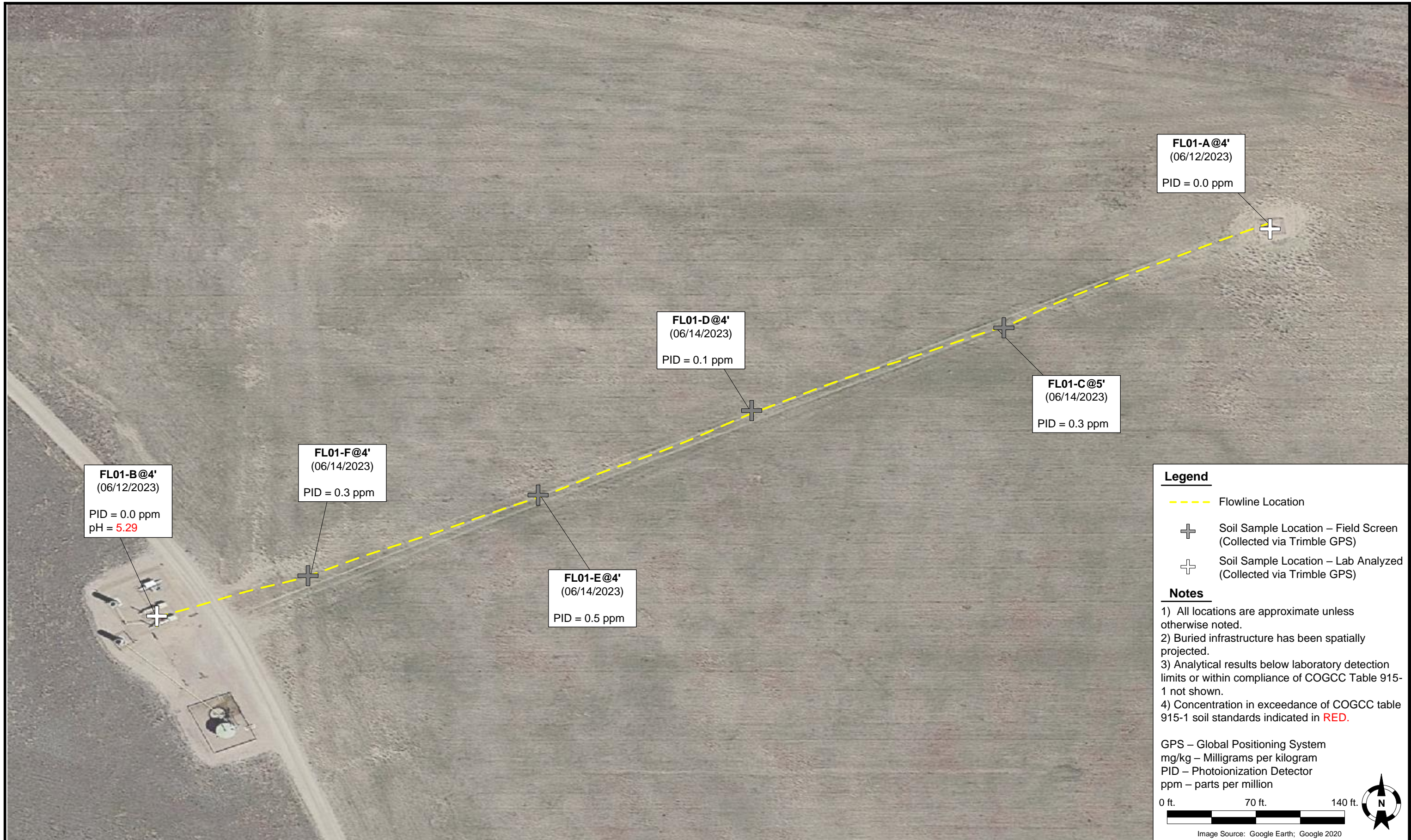
Benzo(a) = Benzo(a)pyrene

A,H = Dibenzo(a,h)anthracene

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

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene



FL01-A@4'
(06/12/2023)
PID = 0.0 ppm

FL01-D@4'
(06/14/2023)
PID = 0.1 ppm

FL01-C@5'
(06/14/2023)
PID = 0.3 ppm

FL01-B@4'
(06/12/2023)
PID = 0.0 ppm
pH = 5.29

FL01-F@4'
(06/14/2023)
PID = 0.3 ppm

FL01-E@4'
(06/14/2023)
PID = 0.5 ppm

Legend

- Flowline Location
- + 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 COGCC Table 915-1 not shown.
- 4) Concentration in exceedance of COGCC 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. 70 ft. 140 ft.

Image Source: Google Earth; Google 2020

| | |
|--------------|------------|
| DATE: | 07/06/2023 |
| DESIGNED BY: | JW |
| DRAWN BY: | MP |



TASMAN
GEOSCIENCES

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

Noble Energy, Inc. – DJ Basin
HSR-Tudor 11-31A
 NESW, Section 31, Township 4 North, Range 65 West
 Weld County, Colorado

Flowline Closure & Soil
 Analytical Results Map
 (06/12/2023 & 06/14/2023)

FIGURE
1

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 20, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

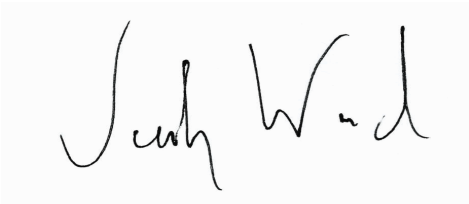
Broomfield, CO 80020

RE: Noble - HSR Tudor 11-31A

Work Order #2306214

Enclosed are the results of analyses for samples received by Summit Scientific on 06/12/23 17:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jacob Wood For Paul Shrewsbury

President



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| FL01-A@4' | 2306214-01 | Soil | 06/12/23 11:35 | 06/12/23 17:35 |
| FL01-B@4' | 2306214-02 | Soil | 06/12/23 11:06 | 06/12/23 17:35 |

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 |
| 2306214 | |

| | | |
|--------------------------------------|---------------------------------------|-------------------------------|
| Send Data To: | | Send Invoice To: |
| Client: Noble/Tasman | Project Manager: Jake Whritenour | Company: Noble |
| Address: 6855 W. 119th Ave. | E-Mail: Jwhritenour@tasman-geo.com | Project Name/Location: |
| City/State/Zip: Broomfield/CO/ 80020 | | AFE#: <u>WW2W4-A7553-A13N</u> |
| Phone: 937-554-5108 | Project Name: <u>HSR Tudor 11-31A</u> | PO/Billing Codes: |
| Sampler Name: Molly Parks | Project Number: <u>27627</u> | Contact: <u>Wade F</u> |

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | Analysis Requested | | | | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|--------------------|--------------|-----------|-----------|-----------|-------------|----------------------|--------------------------------|
| | | | | | HCl | HNO3 | None | Other | Water | Soil | Air-Canister # | Other | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | | Boron - HWS |
| 1 | F101-A@4' | 6-12-23 | 1135 | 2 | | | X | | | X | | | X | X | X | X | X | | SAR, EC, pH by saturated paste |
| 2 | F101-B@4' | 6-12-23 | 1106 | 2 | | | X | | | X | | | X | X | X | X | X | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|---------------------------------|-------------------------------------|--------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>MP</u> | Date/Time: <u>6-12-23/1610</u> | Received by: <u>Tasman Lock Box</u> | Date/Time: <u>6-12-23/1610</u> | TAT Business Days | Field DO | Notes: |
| | | | | Same Day | Field EC | |
| Relinquished by: <u>Tasman Lock Box</u> | Date/Time: <u>6-12-23/1730</u> | Received by: <u>[Signature]</u> | Date/Time: <u>6-12-23/1730</u> | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 3 Days | Field Temp. | |
| | | | | Standard | X Field Turb. | |
| Temperature Upon Receipt: <u>12.3</u> | Corrected Temperature: <u>0</u> | IR gun #: <u>1</u> | HNO3 lot #: | | | |

S₂

Sample Receipt Checklist

S2 Work Order# 2306214

Client: Noble Hasman Client Project ID: HR-Tudor 11-31A

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

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

Temp (°C) Thermometer #

| | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | NOTE |
| If custody seals are present, are they intact? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are samples due within 48 hours present? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Is a chain-of-custody (COC) form present and filled out completely? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Were all samples received intact? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC? ⁽¹⁾ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| If samples are acid preserved for metals, is the pH < 2? ⁽¹⁾ Record the pH in Comments. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| If dissolved metals are requested, were samples field filtered? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Additional Comments (if any): | | | | |
| | | | | |
| | | | | |

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

AS Custodian Printed Name 6/12/23 Date/Time

95



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BGF0471 | 06/13/23 | 06/13/23 | 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: **06/12/23 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0376 | 94.0 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0382 | 95.6 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0394 | 98.6 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BGF0480 | 06/13/23 | 06/13/23 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 12.2 | 97.6 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BGF0464 | 06/13/23 | 06/13/23 | 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: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0229 | 68.8 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0269 | 80.7 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | 0.159 | 0.0100 | mg/L | 1 | BGF0472 | 06/13/23 | 06/18/23 | EPA 6020B | |

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

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|--------|-------|

Summit Scientific

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 82.8 | 0.0551 | mg/L dry | 1 | BGF0533 | 06/14/23 | 06/18/23 | EPA 6020B | |
| Magnesium | 15.7 | 0.0551 | " | " | " | " | " | " | |
| Sodium | 13.0 | 0.0551 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.343 | 0.00100 | units | 1 | BGF0657 | 06/19/23 | 06/19/23 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 90.7 | | % | 1 | BGF0469 | 06/13/23 | 06/13/23 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.311 | 0.0100 | mmhos/cm | 1 | BGF0567 | 06/15/23 | 06/15/23 | EPA 120.1 | |

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

Date Sampled: **06/12/23 11:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 7.63 | | pH Units | 1 | BGF0564 | 06/15/23 | 06/15/23 | EPA 9045D | |

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BGF0471 | 06/13/23 | 06/13/23 | 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: **06/12/23 11:06**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0405 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0398 | 99.6 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0416 | 104 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BGF0480 | 06/13/23 | 06/13/23 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 12.0 | 95.9 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BGF0464 | 06/13/23 | 06/13/23 | 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: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0212 | 63.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0298 | 89.4 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------|---------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | 0.0759 | 0.0100 | mg/L | 1 | BGF0472 | 06/13/23 | 06/18/23 | EPA 6020B | |

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

Date Sampled: **06/12/23 11:06**

| 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 - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 37.4 | 0.0558 | mg/L dry | 1 | BGF0533 | 06/14/23 | 06/18/23 | EPA 6020B | |
| Magnesium | 9.14 | 0.0558 | " | " | " | " | " | " | |
| Sodium | 2.79 | 0.0558 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.106 | 0.00100 | units | 1 | BGF0657 | 06/19/23 | 06/19/23 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 89.6 | | % | 1 | BGF0469 | 06/13/23 | 06/13/23 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.0917 | 0.0100 | mmhos/cm | 1 | BGF0567 | 06/15/23 | 06/15/23 | EPA 120.1 | |

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

Date Sampled: **06/12/23 11:06**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 5.29 | | pH Units | 1 | BGF0564 | 06/15/23 | 06/15/23 | EPA 9045D | |

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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 BGF0471 - EPA 5030 Soil MS

Blank (BGF0471-BLK1)

Prepared: 06/06/23 Analyzed: 06/13/23

| | | | | | | | | | | |
|---|--------|--------|-------|--------|--|------|--------|--|--|--|
| 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> | 0.0382 | | " | 0.0400 | | 95.4 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0380 | | " | 0.0400 | | 95.0 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0413 | | " | 0.0400 | | 103 | 50-150 | | | |

LCS (BGF0471-BS1)

Prepared: 06/06/23 Analyzed: 06/13/23

| | | | | | | | | | | |
|---|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0688 | 0.0020 | mg/kg | 0.0750 | | 91.7 | 70-130 | | | |
| Toluene | 0.0800 | 0.0050 | " | 0.0750 | | 107 | 70-130 | | | |
| Ethylbenzene | 0.0940 | 0.0050 | " | 0.0750 | | 125 | 70-130 | | | |
| m,p-Xylene | 0.185 | 0.010 | " | 0.150 | | 123 | 70-130 | | | |
| o-Xylene | 0.0819 | 0.0050 | " | 0.0750 | | 109 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0847 | 0.0050 | " | 0.0750 | | 113 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0903 | 0.0050 | " | 0.0750 | | 120 | 70-130 | | | |
| Naphthalene | 0.0654 | 0.0038 | " | 0.0750 | | 87.2 | 70-130 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0333 | | " | 0.0400 | | 83.2 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0385 | | " | 0.0400 | | 96.3 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0391 | | " | 0.0400 | | 97.8 | 50-150 | | | |

Matrix Spike (BGF0471-MS1)

Source: 2306210-01

Prepared: 06/06/23 Analyzed: 06/13/23

| | | | | | | | | | | |
|---|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0651 | 0.0020 | mg/kg | 0.0750 | ND | 86.8 | 70-130 | | | |
| Toluene | 0.0732 | 0.0050 | " | 0.0750 | ND | 97.6 | 70-130 | | | |
| Ethylbenzene | 0.0876 | 0.0050 | " | 0.0750 | ND | 117 | 70-130 | | | |
| m,p-Xylene | 0.172 | 0.010 | " | 0.150 | ND | 115 | 70-130 | | | |
| o-Xylene | 0.0779 | 0.0050 | " | 0.0750 | ND | 104 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0822 | 0.0050 | " | 0.0750 | ND | 110 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0846 | 0.0050 | " | 0.0750 | ND | 113 | 70-130 | | | |
| Naphthalene | 0.0705 | 0.0038 | " | 0.0750 | ND | 94.0 | 70-130 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0348 | | " | 0.0400 | | 86.9 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0378 | | " | 0.0400 | | 94.5 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0404 | | " | 0.0400 | | 101 | 50-150 | | | |

Summit Scientific

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGF0471 - EPA 5030 Soil MS

| Matrix Spike Dup (BGF0471-MSD1) | Source: 2306210-01 | | | Prepared: 06/06/23 Analyzed: 06/13/23 | | | | | | |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|-------|----|--|
| Benzene | 0.0662 | 0.0020 | mg/kg | 0.0750 | ND | 88.3 | 70-130 | 1.64 | 30 | |
| Toluene | 0.0751 | 0.0050 | " | 0.0750 | ND | 100 | 70-130 | 2.51 | 30 | |
| Ethylbenzene | 0.0872 | 0.0050 | " | 0.0750 | ND | 116 | 70-130 | 0.446 | 30 | |
| m,p-Xylene | 0.173 | 0.010 | " | 0.150 | ND | 115 | 70-130 | 0.191 | 30 | |
| o-Xylene | 0.0770 | 0.0050 | " | 0.0750 | ND | 103 | 70-130 | 1.20 | 30 | |
| 1,2,4-Trimethylbenzene | 0.0818 | 0.0050 | " | 0.0750 | ND | 109 | 70-130 | 0.512 | 30 | |
| 1,3,5-Trimethylbenzene | 0.0853 | 0.0050 | " | 0.0750 | ND | 114 | 70-130 | 0.777 | 30 | |
| Naphthalene | 0.0730 | 0.0038 | " | 0.0750 | ND | 97.4 | 70-130 | 3.55 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0356 | | " | 0.0400 | | 88.9 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0383 | | " | 0.0400 | | 95.8 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0400 | | " | 0.0400 | | 100 | 50-150 | | | |

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGF0480 - EPA 3550A

Blank (BGF0480-BLK1)

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|--------------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| C28-C36 (ORO) | ND | 50 | " | | | | | | | |
| Surrogate: <i>o</i> -Terphenyl | 11.9 | | " | 12.5 | | 95.5 | 30-150 | | | |

LCS (BGF0480-BS1)

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|--------------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | 449 | 50 | mg/kg | 500 | | 89.8 | 70-130 | | | |
| Surrogate: <i>o</i> -Terphenyl | 11.7 | | " | 12.5 | | 93.3 | 30-150 | | | |

Matrix Spike (BGF0480-MS1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|--------------------------------|------|----|-------|------|------|------|--------|--|--|--|
| C10-C28 (DRO) | 421 | 50 | mg/kg | 500 | 18.5 | 80.5 | 70-130 | | | |
| Surrogate: <i>o</i> -Terphenyl | 11.5 | | " | 12.5 | | 91.9 | 30-150 | | | |

Matrix Spike Dup (BGF0480-MSD1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|--------------------------------|------|----|-------|------|------|------|--------|------|----|--|
| C10-C28 (DRO) | 465 | 50 | mg/kg | 500 | 18.5 | 89.3 | 70-130 | 9.89 | 20 | |
| Surrogate: <i>o</i> -Terphenyl | 12.3 | | " | 12.5 | | 98.7 | 30-150 | | | |

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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 BGF0464 - EPA 5030 Soil MS

Blank (BGF0464-BLK1)

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|---|--------|---------|-------|--------|--|------|--------|--|--|--|
| 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> | 0.0279 | | " | 0.0333 | | 83.6 | 40-150 | | | |
| <i>Surrogate: Fluoranthene-d10</i> | 0.0345 | | " | 0.0333 | | 104 | 40-150 | | | |

LCS (BGF0464-BS1)

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|---|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0328 | 0.00500 | mg/kg | 0.0333 | | 98.5 | 31-137 | | | |
| Anthracene | 0.0347 | 0.00500 | " | 0.0333 | | 104 | 30-120 | | | |
| Benzo (a) anthracene | 0.0292 | 0.00500 | " | 0.0333 | | 87.5 | 30-120 | | | |
| Benzo (a) pyrene | 0.0278 | 0.00500 | " | 0.0333 | | 83.5 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0294 | 0.00500 | " | 0.0333 | | 88.3 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0315 | 0.00500 | " | 0.0333 | | 94.5 | 30-120 | | | |
| Chrysene | 0.0345 | 0.00500 | " | 0.0333 | | 103 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0212 | 0.00500 | " | 0.0333 | | 63.7 | 30-120 | | | |
| Fluoranthene | 0.0325 | 0.00500 | " | 0.0333 | | 97.4 | 30-120 | | | |
| Fluorene | 0.0325 | 0.00500 | " | 0.0333 | | 97.4 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0189 | 0.00500 | " | 0.0333 | | 56.7 | 30-120 | | | |
| Pyrene | 0.0360 | 0.00500 | " | 0.0333 | | 108 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0268 | 0.00500 | " | 0.0333 | | 80.4 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0287 | 0.00500 | " | 0.0333 | | 86.0 | 35-142 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | 0.0294 | | " | 0.0333 | | 88.2 | 40-150 | | | |
| <i>Surrogate: Fluoranthene-d10</i> | 0.0327 | | " | 0.0333 | | 98.2 | 40-150 | | | |

Summit Scientific

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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 BGF0464 - EPA 5030 Soil MS

| Matrix Spike (BGF0464-MS1) | Source: 2306210-01 | | | Prepared & Analyzed: 06/13/23 | | | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|--|--|--|--|--|
| Acenaphthene | 0.0145 | 0.00500 | mg/kg | 0.0333 | ND | 43.4 | 31-137 | | | | | |
| Anthracene | 0.0134 | 0.00500 | " | 0.0333 | ND | 40.1 | 30-120 | | | | | |
| Benzo (a) anthracene | 0.0136 | 0.00500 | " | 0.0333 | ND | 40.9 | 30-120 | | | | | |
| Benzo (a) pyrene | 0.0154 | 0.00500 | " | 0.0333 | ND | 46.2 | 30-120 | | | | | |
| Benzo (b) fluoranthene | 0.0140 | 0.00500 | " | 0.0333 | ND | 42.1 | 30-120 | | | | | |
| Benzo (k) fluoranthene | 0.0160 | 0.00500 | " | 0.0333 | ND | 47.9 | 30-120 | | | | | |
| Chrysene | 0.0151 | 0.00500 | " | 0.0333 | ND | 45.3 | 30-120 | | | | | |
| Dibenz (a,h) anthracene | 0.0137 | 0.00500 | " | 0.0333 | ND | 41.2 | 30-120 | | | | | |
| Fluoranthene | 0.0134 | 0.00500 | " | 0.0333 | ND | 40.1 | 30-120 | | | | | |
| Fluorene | 0.0146 | 0.00500 | " | 0.0333 | ND | 43.9 | 30-120 | | | | | |
| Indeno (1,2,3-cd) pyrene | 0.0137 | 0.00500 | " | 0.0333 | ND | 41.0 | 30-120 | | | | | |
| Pyrene | 0.0144 | 0.00500 | " | 0.0333 | ND | 43.1 | 35-142 | | | | | |
| 1-Methylnaphthalene | 0.0147 | 0.00500 | " | 0.0333 | ND | 44.0 | 15-130 | | | | | |
| 2-Methylnaphthalene | 0.0136 | 0.00500 | " | 0.0333 | ND | 40.7 | 15-130 | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0151</i> | | <i>"</i> | <i>0.0333</i> | | <i>45.3</i> | <i>40-150</i> | | | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0139</i> | | <i>"</i> | <i>0.0333</i> | | <i>41.6</i> | <i>40-150</i> | | | | | |

| Matrix Spike Dup (BGF0464-MSD1) | Source: 2306210-01 | | | Prepared & Analyzed: 06/13/23 | | | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|-------|----|--|--|--|
| Acenaphthene | 0.0158 | 0.00500 | mg/kg | 0.0333 | ND | 47.3 | 31-137 | 8.70 | 30 | | | |
| Anthracene | 0.0151 | 0.00500 | " | 0.0333 | ND | 45.3 | 30-120 | 12.1 | 30 | | | |
| Benzo (a) anthracene | 0.0170 | 0.00500 | " | 0.0333 | ND | 51.1 | 30-120 | 22.2 | 30 | | | |
| Benzo (a) pyrene | 0.0154 | 0.00500 | " | 0.0333 | ND | 46.3 | 30-120 | 0.149 | 30 | | | |
| Benzo (b) fluoranthene | 0.0154 | 0.00500 | " | 0.0333 | ND | 46.2 | 30-120 | 9.34 | 30 | | | |
| Benzo (k) fluoranthene | 0.0150 | 0.00500 | " | 0.0333 | ND | 44.9 | 30-120 | 6.63 | 30 | | | |
| Chrysene | 0.0178 | 0.00500 | " | 0.0333 | ND | 53.3 | 30-120 | 16.2 | 30 | | | |
| Dibenz (a,h) anthracene | 0.0143 | 0.00500 | " | 0.0333 | ND | 42.9 | 30-120 | 4.06 | 30 | | | |
| Fluoranthene | 0.0158 | 0.00500 | " | 0.0333 | ND | 47.5 | 30-120 | 16.8 | 30 | | | |
| Fluorene | 0.0150 | 0.00500 | " | 0.0333 | ND | 44.9 | 30-120 | 2.32 | 30 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0148 | 0.00500 | " | 0.0333 | ND | 44.4 | 30-120 | 7.93 | 30 | | | |
| Pyrene | 0.0193 | 0.00500 | " | 0.0333 | ND | 57.8 | 35-142 | 29.1 | 30 | | | |
| 1-Methylnaphthalene | 0.0168 | 0.00500 | " | 0.0333 | ND | 50.3 | 15-130 | 13.5 | 50 | | | |
| 2-Methylnaphthalene | 0.0167 | 0.00500 | " | 0.0333 | ND | 50.1 | 15-130 | 20.5 | 50 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0174</i> | | <i>"</i> | <i>0.0333</i> | | <i>52.3</i> | <i>40-150</i> | | | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0208</i> | | <i>"</i> | <i>0.0333</i> | | <i>62.5</i> | <i>40-150</i> | | | | | |

Summit Scientific

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

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

Batch BGF0472 - EPA 3050B

Blank (BGF0472-BLK1)

Prepared: 06/13/23 Analyzed: 06/18/23

Boron ND 0.0100 mg/L

LCS (BGF0472-BS1)

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 4.87 0.0100 mg/L 5.00 97.3 80-120

Duplicate (BGF0472-DUP1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 0.849 0.0100 mg/L 0.814 4.15 20

Matrix Spike (BGF0472-MS1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 5.18 0.0100 mg/L 5.00 0.814 87.3 75-125

Matrix Spike Dup (BGF0472-MSD1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 5.36 0.0100 mg/L 5.00 0.814 90.9 75-125 3.40 25

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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

Summit Scientific

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

Batch BGF0533 - General Preparation

Blank (BGF0533-BLK1)

Prepared: 06/14/23 Analyzed: 06/18/23

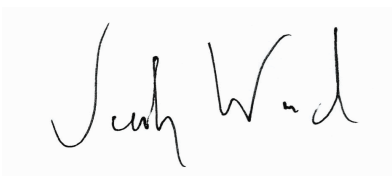
| | | | | | | | | | | |
|-----------|----|--------|----------|--|--|--|--|--|--|--|
| Calcium | ND | 0.0500 | mg/L wet | | | | | | | |
| Magnesium | ND | 0.0500 | " | | | | | | | |
| Sodium | ND | 0.0500 | " | | | | | | | |

LCS (BGF0533-BS1)

Prepared: 06/14/23 Analyzed: 06/18/23

| | | | | | | |
|-----------|------|--------|----------|------|-----|--------|
| Calcium | 5.56 | 0.0500 | mg/L wet | 5.00 | 111 | 70-130 |
| Magnesium | 6.17 | 0.0500 | " | 5.00 | 123 | 70-130 |
| Sodium | 6.03 | 0.0500 | " | 5.00 | 121 | 70-130 |

Summit Scientific



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
 Project Manager: Jacob Whritenour

Reported:
 06/20/23 14:25

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

Summit Scientific

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

Batch BGF0469 - General Preparation


Duplicate (BGF0469-DUP1)

Source: 2305670-04

Prepared & Analyzed: 06/13/23

| | | | | | | | | | | |
|----------|------|--|---|--|------|--|--|------|----|--|
| % Solids | 76.8 | | % | | 77.6 | | | 1.02 | 20 | |
|----------|------|--|---|--|------|--|--|------|----|--|

Summit Scientific



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

Summit Scientific

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

Batch BGF0567 - General Preparation

Blank (BGF0567-BLK1)

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGF0567-BS1)

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 102 95-105

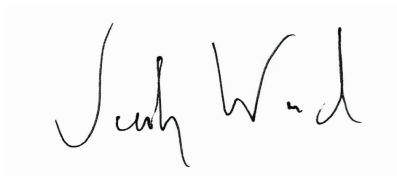
Duplicate (BGF0567-DUP1)

Source: 2304374-05

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) 6.39 0.0100 mmhos/cm 6.56 2.52 20

Summit Scientific



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

Summit Scientific

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

Batch BGF0564 - General Preparation

LCS (BGF0564-BS1)

Prepared & Analyzed: 06/15/23

pH 9.10 pH Units 9.18 99.1 95-105

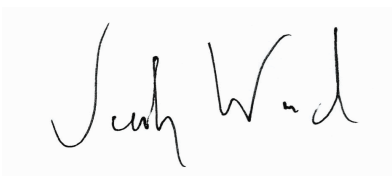
Duplicate (BGF0564-DUP1)

Source: 2305547-01

Prepared & Analyzed: 06/15/23

pH 7.22 pH Units 7.27 0.690 20

Summit Scientific



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

Notes and Definitions

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