

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 23, 2025

Mike Medina

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Bruntz G16-23 Flowline

Work Order #2501103

Enclosed are the results of analyses for samples received by Summit Scientific on 01/10/25 18:11. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier For Paul Shrewsbury  
President



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

Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| SS01-C@4' | 2501103-01    | Soil   | 01/10/25 09:48 | 01/10/25 18:11 |
| SS02-C@2' | 2501103-02    | Soil   | 01/10/25 09:50 | 01/10/25 18:11 |
| SS03-C@2' | 2501103-03    | Soil   | 01/10/25 09:52 | 01/10/25 18:11 |
| SS04-C@2' | 2501103-04    | Soil   | 01/10/25 09:54 | 01/10/25 18:11 |
| SS05-C@2' | 2501103-05    | Soil   | 01/10/25 09:56 | 01/10/25 18:11 |
| SS01-B@4' | 2501103-06    | Soil   | 01/10/25 11:08 | 01/10/25 18:11 |
| SS02-B@1' | 2501103-07    | Soil   | 01/10/25 11:10 | 01/10/25 18:11 |
| SS03-B@1' | 2501103-08    | Soil   | 01/10/25 11:12 | 01/10/25 18:11 |
| SS04-B@1' | 2501103-09    | Soil   | 01/10/25 11:14 | 01/10/25 18:11 |
| SS05-B@1' | 2501103-10    | Soil   | 01/10/25 11:16 | 01/10/25 18:11 |
| SS01-A@4' | 2501103-11    | Soil   | 01/10/25 12:30 | 01/10/25 18:11 |
| SS02-A@1' | 2501103-12    | Soil   | 01/10/25 12:32 | 01/10/25 18:11 |
| SS03-A@1' | 2501103-13    | Soil   | 01/10/25 12:34 | 01/10/25 18:11 |
| SS04-A@1' | 2501103-14    | Soil   | 01/10/25 12:36 | 01/10/25 18:11 |
| SS05-A@1' | 2501103-15    | Soil   | 01/10/25 12:38 | 01/10/25 18:11 |

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.*


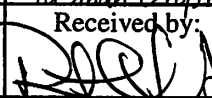
# SUMMIT SCIENTIFIC

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

|         |             |
|---------|-------------|
| Lab ID  | Page 1 of 1 |
| 2501103 |             |

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Client: Noble / Tasman                  |  | Send Data To: Project Manager: Mike Medina   |  | Send Invoice To: Company: Noble Energy         |  |
| Address: 6855 W 119th Ave               |  | E-Mail: jason.davidson@chevron.com; tas-chevron-2@tasman-geo.com; rbueuf27@chevron.com |  | Project Name/Location: Bruntz G16-23 Flowline. |  |
| City/State/Zip: Broomfield / CO / 80020 |  |  |  | AFE#:  |  |
| Phone: 303-487-1228                     |  | Project Name: Bruntz G16-23 Flowline   |  | PO/Billing Codes:                              |  |
| Sampler Name: Jon Meier                 |  | Project Number:  |  | Contact: Jason Davidson                        |  |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      |                | Analysis Requested |               |                   |              |                    |                    | Special Instructions |  |  |   |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|--------------------|---------------|-------------------|--------------|--------------------|--------------------|----------------------|--|--|---|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other              | BTEXN - 8260B | 1,2,4 & 1,3,5-TMB | TDS, Cl, SO4 | Full 915-1 Suite * | pH, EC, SAR, boron | Table 915-1 Metals   |  |  |   |
| 1  | SS01-C@4'          | 1/10/25      | 948          | 2               |              |      | X    |       |        | X    |                |                    |               |                   |              | X                  |                    |                      |  |  | * Metals, PAH's, and Inorganics on 48hr turnaround. |
| 2  | SS02-C@2'          |              | 950          |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 3  | SS03-C@2'          |              | 952          |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 4  | SS04-C@2'          |              | 954          |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 5  | SS05-C@2'          |              | 956          |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 6  | SS01-B@4'          |              | 1108         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 7  | SS02-B@1'          |              | 1110         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 8  | SS03-B@1'          |              | 1112         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 9  | SS04-B@1'          |              | 1114         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 10 | SS05-B@1'          |              | 1116         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 11 | SS01-A@4'          |              | 1230         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 12 | SS02-A@1'          |              | 1232         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 13 | SS03-A@1'          |              | 1234         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 14 | SS04-A@1'          |              | 1236         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |
| 15 | SS05-A@1'          |              | 1238         |                 |              |      |      |       |        |      |                |                    |               |                   |              |                    |                    |                      |  |  |   |

|   |                          |  |                         |                   |             |        |
|---|--------------------------|--|-------------------------|-------------------|-------------|--------|
| Relinquished by:  | Date/Time: 1/10/25 1505  | Received by: Tasman Dymphov  | Date/Time: 1/10/25 1505 | TAT Business Days | Field DO    | Notes: |
|   |                          |  |                         | Same Day          | X Field EC  |        |
| Relinquished by: Tasman Dymphov   | Date/Time: 1/10/25 1811  | Received by:  | Date/Time: 1/10/25 1811 | 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: 2.9   | Corrected Temperature: 6 | IR gun #: 1  | HNO3 lot #:             |                   |             |        |

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2501103Client: Noble Tasman Client Project ID: Brentz Gile-23 FlourishShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|

Matrix (Check all that apply) Air ☐ Soil ☒ Solid ☐ Water ☐ Other ☐Temp (°C) 2.9Thermometer # 1

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

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

1/10/25  
Date/Time



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

Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-C@4'**  
**2501103-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:48**

| Analyte                     | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene                     | ND     | 0.0020          | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050          | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050          | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010           | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050          | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050          | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038          | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50            | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:48**

| Analyte                          | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0425 | 106 %           | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0414 | 103 %           | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0395 | 98.8 %          | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 09:48**

| Analyte       | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND     | 50              | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50              | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:48**

| Analyte                | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 8.93   | 71.5 %          | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN

Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-C@4'**  
**2501103-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 09:48**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 09:48**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0180 | 54.0 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0208 | 62.4 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 09:48**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 09:48**

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-C@4'**  
**2501103-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 1.55   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 40.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 4.77   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 5.63   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 3.24   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0456 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 19.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 09:48**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 09:48**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 38.5   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 6.57   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 56.2   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 09:48**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.20   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-C@4'**  
**2501103-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:48**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 86.8   |                 | %     | 1        | BIA0473 | 01/13/25 | 01/13/25 | Calculation |       |

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

Date Sampled: **01/10/25 09:48**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.374  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 09:48**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.02   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-C@2'**  
**2501103-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:50**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:50**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0417 | 104 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0410 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0395 | 98.7 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 09:50**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:50**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 7.79   | 62.4 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-C@2'**  
**2501103-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 09:50**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 09:50**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0205 | 61.5 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0208 | 62.4 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 09:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 09:50**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-C@2'**  
**2501103-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.82   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 88.6   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.215  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 9.41   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 8.05   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 5.14   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0454 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 38.0   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 09:50**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 09:50**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 496    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 131    | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 63.6   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 09:50**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.656  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 09:50**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-C@2'**  
**2501103-02 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 88.7 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 09:50**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.233  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 09:50**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.27   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-C@2'**  
**2501103-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:52**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:52**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0429 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0413 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0396 | 98.9 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 09:52**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:52**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 9.01   | 72.1 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-C@2'**  
**2501103-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 09:52**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 09:52**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0201 | 60.3 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0220 | 65.9 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 09:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 09:52**

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

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-C@2'**  
**2501103-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.44   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 57.2   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.227  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 8.32   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 8.97   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.23   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0759 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 30.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 09:52**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 09:52**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 115    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 26.7   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 50.8   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 09:52**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.11   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 09:52**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-C@2'**  
**2501103-03 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 93.9 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 09:52**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.381  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 09:52**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.08   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-C@2'**  
**2501103-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:54**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:54**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0435 | 109 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0399 | 99.7 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0395 | 98.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 09:54**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:54**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 7.71   | 61.7 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-C@2'**  
**2501103-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 09:54**

| Analyte                         | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|---------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                    | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                      | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>     | <b>0.0104</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>         | <b>0.00917</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b>   | <b>0.00981</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene          | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>                 | <b>0.00945</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene         | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>             | <b>0.00922</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                        | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Indeno (1,2,3-cd) pyrene</b> | <b>0.00769</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                   | <b>0.0117</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene             | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene             | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 09:54**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0173 | 52.0 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0190 | 56.9 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 09:54**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 09:54**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-C@2'**  
**2501103-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 3.66   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 103    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.227  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 9.38   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 8.72   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 5.52   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0482 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 38.4   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 09:54**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 09:54**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 234    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 51.8   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 57.4   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 09:54**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.884  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 09:54**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-C@2'**  
**2501103-04 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 90.9 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 09:54**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.321  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 09:54**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.47   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-C@2'**  
**2501103-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 09:56**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:56**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0427 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0400 | 100 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0395 | 98.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 09:56**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 09:56**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 7.83   | 62.6 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-C@2'**  
**2501103-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 09:56**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 09:56**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0155 | 46.4 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0153 | 45.8 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 09:56**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 09:56**

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-C@2'**  
**2501103-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 1.97   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 48.6   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.234  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.81   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 9.27   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 3.75   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0892 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 29.8   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 09:56**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 09:56**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 40.3   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 9.95   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 54.6   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 09:56**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.00   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 09:56**

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-C@2'**  
**2501103-05 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 92.9 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 09:56**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.480  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 09:56**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.75   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-B@4'**  
**2501103-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:08**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:08**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0432 | 108 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0401 | 100 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0404 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 11:08**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:08**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.92   | 71.4 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-B@4'**  
**2501103-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 11:08**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 11:08**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0188 | 56.3 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0204 | 61.3 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 11:08**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 11:08**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-B@4'**  
**2501103-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.07   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 58.3   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 5.63   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 5.35   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.02   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0256 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 22.4   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 11:08**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 11:08**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 29.8   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 6.43   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 55.7   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 11:08**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.41   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-B@4'**  
**2501103-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:08**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 95.5   |                    | %     | 1        | BIA0473 | 01/13/25 | 01/13/25 | Calculation |       |

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

Date Sampled: **01/10/25 11:08**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.400  | 0.0100             | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 11:08**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.29   |                    | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-B@1'**  
**2501103-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:10**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:10**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0405 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0403 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0390 | 97.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 11:10**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:10**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 10.1   | 80.7 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-B@1'**  
**2501103-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 11:10**

| Analyte                       | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|-------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                  | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                    | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>   | <b>0.00508</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>       | <b>0.00513</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b> | <b>0.00531</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene        | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>               | <b>0.00532</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene       | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>           | <b>0.00504</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                      | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene      | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                 | <b>0.00605</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene           | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene           | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 11:10**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0192 | 57.5 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0221 | 66.2 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 11:10**

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-B@1'**  
**2501103-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |       |        |           |   |         |          |          |           |
|----------|-------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.76  | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 32.8  | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.309 | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.32  | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 10.8  | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 3.44  | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.110 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 31.0  | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND    | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 11:10**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 11:10**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 165    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 35.1   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 33.9   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 11:10**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.625  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 11:10**

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-B@1'**  
**2501103-07 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 92.9 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 11:10**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.166  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 11:10**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.55   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-B@1'**  
**2501103-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:12**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:12**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0430 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0403 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0388 | 97.0 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 11:12**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:12**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 9.82   | 78.5 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-B@1'**  
**2501103-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 11:12**

| Analyte                       | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|-------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                  | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                    | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>   | <b>0.00520</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>       | <b>0.00524</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b> | <b>0.00620</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene        | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>               | <b>0.00544</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene       | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>           | <b>0.00597</b> | 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: **01/10/25 11:12**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0245 | 73.6 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0263 | 78.8 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 11:12**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 11:12**

| 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 - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-B@1'**  
**2501103-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.10   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 36.8   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.216  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.00   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 9.35   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 2.93   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0908 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 24.4   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 11:12**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 11:12**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 192    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 40.1   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 41.8   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 11:12**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.716  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 11:12**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-B@1'**  
**2501103-08 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 94.6 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 11:12**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.245  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 11:12**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.04   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-B@1'**  
**2501103-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:14**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:14**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0429 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0404 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0394 | 98.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 11:14**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:14**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.87   | 71.0 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-B@1'**  
**2501103-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 11:14**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 11:14**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0183 | 54.9 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0184 | 55.3 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 11:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 11:14**

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

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6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-B@1'**  
**2501103-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.16   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 38.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.236  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.43   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 10.0   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 2.96   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0801 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 25.4   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 11:14**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 11:14**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 142    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 30.0   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 97.3   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 11:14**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.94   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 11:14**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-B@1'**  
**2501103-09 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 93.8 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 11:14**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.603  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 11:14**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.39   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-B@1'**  
**2501103-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 11:16**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:16**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0428 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0402 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0390 | 97.5 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 11:16**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 11:16**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 7.56   | 60.5 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-B@1'**  
**2501103-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 11:16**

| Analyte                         | Result        | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|---------------------------------|---------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                    | ND            | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                      | ND            | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>     | <b>0.0280</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>         | <b>0.0191</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b>   | <b>0.0309</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (k) fluoranthene</b>   | <b>0.0105</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>                 | <b>0.0274</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene         | ND            | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>             | <b>0.0486</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                        | ND            | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Indeno (1,2,3-cd) pyrene</b> | <b>0.0225</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                   | <b>0.0451</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene             | ND            | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene             | ND            | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 11:16**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0248 | 74.3 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0274 | 82.3 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 11:16**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 11:16**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-B@1'**  
**2501103-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.58   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 50.0   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.200  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.07   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 7.82   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.17   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0586 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 26.2   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 11:16**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 11:16**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 41.6   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 8.30   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 58.9   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 11:16**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.18   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 11:16**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-B@1'**  
**2501103-10 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 91.6 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 11:16**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.473  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 11:16**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.83   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-A@4'**  
**2501103-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:30**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:30**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0403 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0404 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0399 | 99.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 12:30**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:30**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.11   | 64.9 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-A@4'**  
**2501103-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 12:30**

| Analyte                    | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|----------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene               | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                 | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene       | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene           | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene     | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene     | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                   | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene    | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene               | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                   | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene   | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>              | <b>0.00999</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>1-Methylnaphthalene</b> | <b>0.00729</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>2-Methylnaphthalene</b> | <b>0.00967</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 12:30**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0170 | 50.9 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0181 | 54.4 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 12:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 12:30**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-A@4'**  
**2501103-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 4.01   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 88.6   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.206  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 13.8   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 10.6   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 6.24   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0389 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 40.0   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 12:30**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 12:30**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 65.4   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 13.3   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 45.1   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 12:30**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.33   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 12:30**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS01-A@4'**  
**2501103-11 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 74.7 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 12:30**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.491  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 12:30**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.03   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-A@1'**  
**2501103-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:32**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:32**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0414 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0403 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0389 | 97.4 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 12:32**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:32**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 6.39   | 51.2 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-A@1'**  
**2501103-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 12:32**

| Analyte                         | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|---------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                    | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| <b>Anthracene</b>               | <b>0.00511</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>     | <b>0.0422</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>         | <b>0.0292</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b>   | <b>0.0441</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (k) fluoranthene</b>   | <b>0.0148</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>                 | <b>0.0376</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene         | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>             | <b>0.0684</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                        | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Indeno (1,2,3-cd) pyrene</b> | <b>0.0383</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                   | <b>0.0739</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene             | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene             | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 12:32**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0185 | 55.5 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0196 | 58.7 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 12:32**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 12:32**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-A@1'**  
**2501103-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.48   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 51.0   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | 0.251  | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 10.2   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 8.67   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.00   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0454 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 29.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 12:32**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 12:32**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 38.7   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 15.3   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 19.6   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 12:32**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.675  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

Date Sampled: **01/10/25 12:32**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS02-A@1'**  
**2501103-12 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 90.6 | % | 1 | BIA0473 | 01/13/25 | 01/13/25 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **01/10/25 12:32**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.388  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 12:32**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.49   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-A@1'**  
**2501103-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:34**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:34**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0410 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0392 | 98.0 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0391 | 97.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 12:34**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:34**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.57   | 68.6 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-A@1'**  
**2501103-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 12:34**

| Analyte                       | Result         | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|-------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                  | ND             | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene                    | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) anthracene</b>   | <b>0.00604</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene              | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b> | <b>0.00680</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene        | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>               | <b>0.00529</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene       | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>           | <b>0.0104</b>  | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                      | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene      | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                 | <b>0.00779</b> | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene           | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene           | ND             | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 12:34**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0168 | 50.5 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0188 | 56.5 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 12:34**

| 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-A@1'**  
**2501103-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.85   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 63.1   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 8.11   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 7.66   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 5.29   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0478 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 28.6   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 12:34**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 12:34**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 53.2   | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 12.4   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 22.4   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 12:34**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.719  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS03-A@1'**  
**2501103-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:34**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 90.8   |                 | %     | 1        | BIA0473 | 01/13/25 | 01/13/25 | Calculation |       |

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

Date Sampled: **01/10/25 12:34**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.486  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 12:34**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.13   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-A@1'**  
**2501103-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:36**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:36**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0399 | 99.8 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0397 | 99.2 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0390 | 97.5 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 12:36**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:36**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.84   | 70.7 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-A@1'**  
**2501103-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 12:36**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/18/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 12:36**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0168 | 50.5 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0189 | 56.7 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 12:36**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 12:36**

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

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Tasman Geosciences  
6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-A@1'**  
**2501103-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 3.04   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 64.0   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 7.93   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 7.82   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.74   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0450 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 28.8   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 12:36**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 12:36**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 428    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 91.7   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 35.5   | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 12:36**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.406  | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS04-A@1'**  
**2501103-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:36**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 90.8   |                 | %     | 1        | BIA0473 | 01/13/25 | 01/13/25 | Calculation |       |

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

Date Sampled: **01/10/25 12:36**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.285  | 0.0100          | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 12:36**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.79   |                 | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-A@1'**  
**2501103-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:38**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BIA0450 | 01/10/25 | 01/11/25 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:38**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0411 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0411 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0391 | 97.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/10/25 12:38**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BIA0452 | 01/10/25 | 01/11/25 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **01/10/25 12:38**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 8.23   | 65.8 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-A@1'**  
**2501103-15 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/10/25 12:38**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BIA0565 | 01/14/25 | 01/22/25 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **01/10/25 12:38**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0237 | 71.1 %          | 40-140 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0237 | 71.0 %          | 40-140 |          | "     | "        | "        | "      |       |

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

Date Sampled: **01/10/25 12:38**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron   | ND     | 2.00            | mg/L  | 1        | BIA0501 | 01/13/25 | 01/15/25 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **01/10/25 12:38**

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

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6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-A@1'**  
**2501103-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 2.76   | 0.200  | mg/kg dry | 1 | BIA0491 | 01/13/25 | 01/14/25 | EPA 6020B |
| Barium   | 64.1   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 6.95   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 6.54   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 4.73   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0300 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 25.7   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/10/25 12:38**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BIA0514 | 01/13/25 | 01/13/25 | EPA 7196A |       |

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

Date Sampled: **01/10/25 12:38**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 363    | 0.0500          | mg/L dry | 1        | BIA0449 | 01/10/25 | 01/14/25 | EPA 6020B |       |
| Magnesium | 86.3   | 0.0500          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 104    | 0.0500          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **01/10/25 12:38**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.27   | 0.00100         | units | 1        | BIA0666 | 01/15/25 | 01/15/25 | Calculation |       |

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

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6855 W. 119th Ave.  
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Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**SS05-A@1'**  
**2501103-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/10/25 12:38**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 91.2   |                    | %     | 1        | BIA0473 | 01/13/25 | 01/13/25 | Calculation |       |

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

Date Sampled: **01/10/25 12:38**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.291  | 0.0100             | mmhos/cm | 1        | BIA0453 | 01/10/25 | 01/13/25 | EPA 120.1 |       |

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

Date Sampled: **01/10/25 12:38**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.21   |                    | pH Units | 1        | BIA0456 | 01/10/25 | 01/13/25 | EPA 9045D |       |

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Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BIA0450 - EPA 5030 Soil MS

##### Blank (BIA0450-BLK1)

Prepared: 01/10/25 Analyzed: 01/11/25

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | ND     | 0.0020 | mg/kg |        |  |      |        |  |  |  |
| Toluene                          | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Ethylbenzene                     | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Xylenes (total)                  | ND     | 0.010  | "     |        |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Naphthalene                      | ND     | 0.0038 | "     |        |  |      |        |  |  |  |
| Gasoline Range Hydrocarbons      | ND     | 0.50   | "     |        |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0446 |        | "     | 0.0400 |  | 111  | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0392 |        | "     | 0.0400 |  | 98.1 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0414 |        | "     | 0.0400 |  | 104  | 50-150 |  |  |  |

##### LCS (BIA0450-BS1)

Prepared: 01/10/25 Analyzed: 01/11/25

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | 0.0929 | 0.0020 | mg/kg | 0.100  |  | 92.9 | 70-130 |  |  |  |
| Toluene                          | 0.0935 | 0.0050 | "     | 0.100  |  | 93.5 | 70-130 |  |  |  |
| Ethylbenzene                     | 0.102  | 0.0050 | "     | 0.100  |  | 102  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.194  | 0.010  | "     | 0.200  |  | 96.9 | 70-130 |  |  |  |
| o-Xylene                         | 0.0935 | 0.0050 | "     | 0.100  |  | 93.5 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.0937 | 0.0050 | "     | 0.100  |  | 93.7 | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.0962 | 0.0050 | "     | 0.100  |  | 96.2 | 70-130 |  |  |  |
| Naphthalene                      | 0.0932 | 0.0038 | "     | 0.100  |  | 93.2 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0406 |        | "     | 0.0400 |  | 101  | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0410 |        | "     | 0.0400 |  | 103  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0393 |        | "     | 0.0400 |  | 98.2 | 50-150 |  |  |  |

##### Matrix Spike (BIA0450-MS1)

Source: 2501103-01

Prepared: 01/10/25 Analyzed: 01/11/25

|                                  |        |        |       |        |    |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene                          | 0.0977 | 0.0020 | mg/kg | 0.100  | ND | 97.7 | 70-130 |  |  |  |
| Toluene                          | 0.0986 | 0.0050 | "     | 0.100  | ND | 98.6 | 70-130 |  |  |  |
| Ethylbenzene                     | 0.102  | 0.0050 | "     | 0.100  | ND | 102  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.190  | 0.010  | "     | 0.200  | ND | 95.2 | 70-130 |  |  |  |
| o-Xylene                         | 0.0919 | 0.0050 | "     | 0.100  | ND | 91.9 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.0890 | 0.0050 | "     | 0.100  | ND | 89.0 | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.0920 | 0.0050 | "     | 0.100  | ND | 92.0 | 70-130 |  |  |  |
| Naphthalene                      | 0.0771 | 0.0038 | "     | 0.100  | ND | 77.1 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0424 |        | "     | 0.0400 |    | 106  | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0416 |        | "     | 0.0400 |    | 104  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0396 |        | "     | 0.0400 |    | 99.1 | 50-150 |  |  |  |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

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

**Batch BIA0450 - EPA 5030 Soil MS**

| Matrix Spike Dup (BIA0450-MSD1)  | Source: 2501103-01 |        |       | Prepared: 01/10/25 Analyzed: 01/11/25 |    |      |        |      |    |  |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|------|----|--|
| Benzene                          | 0.103              | 0.0020 | mg/kg | 0.100                                 | ND | 103  | 70-130 | 5.18 | 30 |  |
| Toluene                          | 0.100              | 0.0050 | "     | 0.100                                 | ND | 100  | 70-130 | 1.57 | 30 |  |
| Ethylbenzene                     | 0.104              | 0.0050 | "     | 0.100                                 | ND | 104  | 70-130 | 1.86 | 30 |  |
| m,p-Xylene                       | 0.199              | 0.010  | "     | 0.200                                 | ND | 99.7 | 70-130 | 4.63 | 30 |  |
| o-Xylene                         | 0.0956             | 0.0050 | "     | 0.100                                 | ND | 95.6 | 70-130 | 3.97 | 30 |  |
| 1,2,4-Trimethylbenzene           | 0.0919             | 0.0050 | "     | 0.100                                 | ND | 91.9 | 70-130 | 3.22 | 30 |  |
| 1,3,5-Trimethylbenzene           | 0.0932             | 0.0050 | "     | 0.100                                 | ND | 93.2 | 70-130 | 1.26 | 30 |  |
| Naphthalene                      | 0.0834             | 0.0038 | "     | 0.100                                 | ND | 83.4 | 70-130 | 7.81 | 30 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0425             |        | "     | 0.0400                                |    | 106  | 50-150 |      |    |  |
| Surrogate: Toluene-d8            | 0.0416             |        | "     | 0.0400                                |    | 104  | 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 - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

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

**Batch BIA0452 - EPA 3550A**

**Blank (BIA0452-BLK1)**

Prepared: 01/10/25 Analyzed: 01/11/25

|                        |      |    |       |      |  |      |        |  |  |  |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO)          | ND   | 50 | mg/kg |      |  |      |        |  |  |  |
| C28-C36 (ORO)          | ND   | 50 | "     |      |  |      |        |  |  |  |
| Surrogate: o-Terphenyl | 11.8 |    | "     | 12.5 |  | 94.5 | 30-150 |  |  |  |

**LCS (BIA0452-BS1)**

Prepared: 01/10/25 Analyzed: 01/11/25

|                        |      |    |       |      |  |      |        |  |  |  |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO)          | 547  | 50 | mg/kg | 500  |  | 109  | 70-130 |  |  |  |
| Surrogate: o-Terphenyl | 12.4 |    | "     | 12.5 |  | 99.0 | 30-150 |  |  |  |

**Matrix Spike (BIA0452-MS1)**

Source: 2501103-01

Prepared: 01/10/25 Analyzed: 01/11/25

|                        |      |    |       |      |      |      |        |  |  |  |
|------------------------|------|----|-------|------|------|------|--------|--|--|--|
| C10-C28 (DRO)          | 549  | 50 | mg/kg | 500  | 22.5 | 105  | 70-130 |  |  |  |
| Surrogate: o-Terphenyl | 10.7 |    | "     | 12.5 |      | 85.7 | 30-150 |  |  |  |

**Matrix Spike Dup (BIA0452-MSD1)**

Source: 2501103-01

Prepared: 01/10/25 Analyzed: 01/11/25

|                        |      |    |       |      |      |      |        |      |    |  |
|------------------------|------|----|-------|------|------|------|--------|------|----|--|
| C10-C28 (DRO)          | 582  | 50 | mg/kg | 500  | 22.5 | 112  | 70-130 | 5.82 | 20 |  |
| Surrogate: o-Terphenyl | 10.4 |    | "     | 12.5 |      | 83.1 | 30-150 |      |    |  |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BIA0565 - EPA 5030 Soil MS

##### Blank (BIA0565-BLK1)

Prepared: 01/14/25 Analyzed: 01/18/25

|                                    |        |         |       |        |  |      |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene                       | ND     | 0.00500 | mg/kg |        |  |      |        |  |  |  |
| Anthracene                         | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (a) anthracene               | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (a) pyrene                   | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (b) fluoranthene             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (k) fluoranthene             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Chrysene                           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Dibenz (a,h) anthracene            | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Fluoranthene                       | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Fluorene                           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Indeno (1,2,3-cd) pyrene           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Pyrene                             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| 1-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| 2-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0215 |         | "     | 0.0333 |  | 64.6 | 40-140 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0254 |         | "     | 0.0333 |  | 76.1 | 40-140 |  |  |  |

##### LCS (BIA0565-BS1)

Prepared: 01/14/25 Analyzed: 01/18/25

|                                    |        |         |       |        |  |      |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene                       | 0.0232 | 0.00500 | mg/kg | 0.0333 |  | 69.7 | 40-140 |  |  |  |
| Anthracene                         | 0.0258 | 0.00500 | "     | 0.0333 |  | 77.5 | 40-140 |  |  |  |
| Benzo (a) anthracene               | 0.0259 | 0.00500 | "     | 0.0333 |  | 77.7 | 40-140 |  |  |  |
| Benzo (a) pyrene                   | 0.0222 | 0.00500 | "     | 0.0333 |  | 66.5 | 40-140 |  |  |  |
| Benzo (b) fluoranthene             | 0.0216 | 0.00500 | "     | 0.0333 |  | 64.7 | 40-140 |  |  |  |
| Benzo (k) fluoranthene             | 0.0210 | 0.00500 | "     | 0.0333 |  | 63.0 | 40-140 |  |  |  |
| Chrysene                           | 0.0241 | 0.00500 | "     | 0.0333 |  | 72.4 | 40-140 |  |  |  |
| Dibenz (a,h) anthracene            | 0.0259 | 0.00500 | "     | 0.0333 |  | 77.6 | 40-140 |  |  |  |
| Fluoranthene                       | 0.0240 | 0.00500 | "     | 0.0333 |  | 72.0 | 40-140 |  |  |  |
| Fluorene                           | 0.0241 | 0.00500 | "     | 0.0333 |  | 72.2 | 40-140 |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0288 | 0.00500 | "     | 0.0333 |  | 86.4 | 40-140 |  |  |  |
| Pyrene                             | 0.0259 | 0.00500 | "     | 0.0333 |  | 77.6 | 40-140 |  |  |  |
| 1-Methylnaphthalene                | 0.0238 | 0.00500 | "     | 0.0333 |  | 71.4 | 40-140 |  |  |  |
| 2-Methylnaphthalene                | 0.0249 | 0.00500 | "     | 0.0333 |  | 74.8 | 40-140 |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0224 |         | "     | 0.0333 |  | 67.2 | 40-140 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0246 |         | "     | 0.0333 |  | 73.9 | 40-140 |  |  |  |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BIA0565 - EPA 5030 Soil MS

| Matrix Spike (BIA0565-MS1)         |        |         | Source: 2501103-01 |        | Prepared: 01/14/25 Analyzed: 01/18/25 |      |        |  |  |  |  |
|------------------------------------|--------|---------|--------------------|--------|---------------------------------------|------|--------|--|--|--|--|
| Acenaphthene                       | 0.0256 | 0.00500 | mg/kg              | 0.0333 | ND                                    | 76.9 | 40-140 |  |  |  |  |
| Anthracene                         | 0.0270 | 0.00500 | "                  | 0.0333 | ND                                    | 81.1 | 40-140 |  |  |  |  |
| Benzo (a) anthracene               | 0.0295 | 0.00500 | "                  | 0.0333 | ND                                    | 88.4 | 40-140 |  |  |  |  |
| Benzo (a) pyrene                   | 0.0253 | 0.00500 | "                  | 0.0333 | ND                                    | 75.9 | 40-140 |  |  |  |  |
| Benzo (b) fluoranthene             | 0.0273 | 0.00500 | "                  | 0.0333 | ND                                    | 81.9 | 40-140 |  |  |  |  |
| Benzo (k) fluoranthene             | 0.0247 | 0.00500 | "                  | 0.0333 | ND                                    | 74.0 | 40-140 |  |  |  |  |
| Chrysene                           | 0.0271 | 0.00500 | "                  | 0.0333 | ND                                    | 81.4 | 40-140 |  |  |  |  |
| Dibenz (a,h) anthracene            | 0.0341 | 0.00500 | "                  | 0.0333 | ND                                    | 102  | 40-140 |  |  |  |  |
| Fluoranthene                       | 0.0286 | 0.00500 | "                  | 0.0333 | ND                                    | 85.9 | 40-140 |  |  |  |  |
| Fluorene                           | 0.0253 | 0.00500 | "                  | 0.0333 | ND                                    | 76.0 | 40-140 |  |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0200 | 0.00500 | "                  | 0.0333 | ND                                    | 60.0 | 40-140 |  |  |  |  |
| Pyrene                             | 0.0354 | 0.00500 | "                  | 0.0333 | ND                                    | 106  | 40-140 |  |  |  |  |
| 1-Methylnaphthalene                | 0.0240 | 0.00500 | "                  | 0.0333 | ND                                    | 71.9 | 40-140 |  |  |  |  |
| 2-Methylnaphthalene                | 0.0266 | 0.00500 | "                  | 0.0333 | ND                                    | 79.9 | 40-140 |  |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0234 |         | "                  | 0.0333 |                                       | 70.1 | 40-140 |  |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0259 |         | "                  | 0.0333 |                                       | 77.8 | 40-140 |  |  |  |  |

| Matrix Spike Dup (BIA0565-MSD1)    |        |         | Source: 2501103-01 |        | Prepared: 01/14/25 Analyzed: 01/18/25 |      |        |      |    |  |       |
|------------------------------------|--------|---------|--------------------|--------|---------------------------------------|------|--------|------|----|--|-------|
| Acenaphthene                       | 0.0183 | 0.00500 | mg/kg              | 0.0333 | ND                                    | 54.9 | 40-140 | 33.4 | 30 |  | QR-02 |
| Anthracene                         | 0.0188 | 0.00500 | "                  | 0.0333 | ND                                    | 56.3 | 40-140 | 36.2 | 30 |  | QR-02 |
| Benzo (a) anthracene               | 0.0213 | 0.00500 | "                  | 0.0333 | ND                                    | 64.0 | 40-140 | 32.0 | 30 |  | QR-02 |
| Benzo (a) pyrene                   | 0.0185 | 0.00500 | "                  | 0.0333 | ND                                    | 55.6 | 40-140 | 30.8 | 30 |  | QR-02 |
| Benzo (b) fluoranthene             | 0.0204 | 0.00500 | "                  | 0.0333 | ND                                    | 61.1 | 40-140 | 29.2 | 30 |  |       |
| Benzo (k) fluoranthene             | 0.0182 | 0.00500 | "                  | 0.0333 | ND                                    | 54.5 | 40-140 | 30.3 | 30 |  | QR-02 |
| Chrysene                           | 0.0195 | 0.00500 | "                  | 0.0333 | ND                                    | 58.5 | 40-140 | 32.7 | 30 |  | QR-02 |
| Dibenz (a,h) anthracene            | 0.0235 | 0.00500 | "                  | 0.0333 | ND                                    | 70.6 | 40-140 | 36.6 | 30 |  | QR-02 |
| Fluoranthene                       | 0.0209 | 0.00500 | "                  | 0.0333 | ND                                    | 62.6 | 40-140 | 31.5 | 30 |  | QR-02 |
| Fluorene                           | 0.0179 | 0.00500 | "                  | 0.0333 | ND                                    | 53.6 | 40-140 | 34.6 | 30 |  | QR-02 |
| Indeno (1,2,3-cd) pyrene           | 0.0234 | 0.00500 | "                  | 0.0333 | ND                                    | 70.3 | 40-140 | 15.9 | 30 |  |       |
| Pyrene                             | 0.0242 | 0.00500 | "                  | 0.0333 | ND                                    | 72.5 | 40-140 | 37.6 | 30 |  | QR-02 |
| 1-Methylnaphthalene                | 0.0181 | 0.00500 | "                  | 0.0333 | ND                                    | 54.2 | 40-140 | 28.2 | 30 |  |       |
| 2-Methylnaphthalene                | 0.0196 | 0.00500 | "                  | 0.0333 | ND                                    | 58.9 | 40-140 | 30.2 | 30 |  | QR-02 |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0169 |         | "                  | 0.0333 |                                       | 50.7 | 40-140 |      |    |  |       |
| Surrogate: Fluoranthene-d10        | 0.0183 |         | "                  | 0.0333 |                                       | 55.0 | 40-140 |      |    |  |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

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

**Batch BIA0501 - EPA 3050B**

**Blank (BIA0501-BLK1)**

Prepared: 01/13/25 Analyzed: 01/15/25

Boron ND 2.00 mg/L

**LCS (BIA0501-BS1)**

Prepared: 01/13/25 Analyzed: 01/15/25

Boron 5.20 2.00 mg/L 5.00 104 80-120

**Duplicate (BIA0501-DUP1)**

**Source: 2501103-01**

Prepared: 01/13/25 Analyzed: 01/15/25

Boron 0.374 2.00 mg/L 0.438 15.7 20

**Matrix Spike (BIA0501-MS1)**

**Source: 2501103-01**

Prepared: 01/13/25 Analyzed: 01/15/25

Boron 5.36 2.00 mg/L 5.00 0.438 98.4 75-125

**Matrix Spike Dup (BIA0501-MSD1)**

**Source: 2501103-01**

Prepared: 01/13/25 Analyzed: 01/15/25

Boron 5.47 2.00 mg/L 5.00 0.438 101 75-125 2.08 25

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BIA0491 - EPA 3050B**

**Blank (BIA0491-BLK1)**

Prepared: 01/13/25 Analyzed: 01/14/25

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

**LCS (BIA0491-BS1)**

Prepared: 01/13/25 Analyzed: 01/14/25

|          |      |        |           |      |      |        |
|----------|------|--------|-----------|------|------|--------|
| Arsenic  | 36.4 | 0.200  | mg/kg wet | 40.3 | 90.3 | 80-120 |
| Barium   | 37.9 | 0.400  | "         | 40.3 | 93.9 | 80-120 |
| Cadmium  | 1.91 | 0.200  | "         | 2.02 | 94.8 | 80-120 |
| Copper   | 37.4 | 0.400  | "         | 40.3 | 92.8 | 80-120 |
| Lead     | 19.0 | 0.200  | "         | 20.2 | 94.4 | 80-120 |
| Nickel   | 39.2 | 0.400  | "         | 40.3 | 97.2 | 80-120 |
| Silver   | 1.90 | 0.0200 | "         | 2.02 | 94.3 | 80-120 |
| Zinc     | 37.1 | 0.400  | "         | 40.3 | 92.0 | 80-120 |
| Selenium | 3.85 | 0.260  | "         | 4.03 | 95.5 | 80-120 |

**Duplicate (BIA0491-DUP1)**

Source: 2501103-01

Prepared: 01/13/25 Analyzed: 01/14/25

|          |        |        |           |        |      |    |       |
|----------|--------|--------|-----------|--------|------|----|-------|
| Arsenic  | 2.59   | 0.200  | mg/kg dry | 1.55   | 50.2 | 20 | QR-04 |
| Barium   | 41.4   | 0.400  | "         | 40.7   | 1.74 | 20 |       |
| Cadmium  | 0.168  | 0.200  | "         | 0.147  | 13.3 | 20 |       |
| Copper   | 5.98   | 0.400  | "         | 4.77   | 22.6 | 20 | QR-04 |
| Lead     | 6.52   | 0.200  | "         | 5.63   | 14.6 | 20 |       |
| Nickel   | 3.88   | 0.400  | "         | 3.24   | 17.8 | 20 |       |
| Silver   | 0.0485 | 0.0200 | "         | 0.0456 | 6.24 | 20 |       |
| Zinc     | 22.9   | 0.400  | "         | 19.7   | 15.0 | 20 |       |
| Selenium | ND     | 0.260  | "         | ND     |      | 20 |       |

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BIA0491 - EPA 3050B**

| Matrix Spike (BIA0491-MS1) |      | Source: 2501103-01 |           |      | Prepared: 01/13/25 Analyzed: 01/14/25 |      |        |  |  |       |
|----------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|--|--|-------|
| Arsenic                    | 40.1 | 0.200              | mg/kg dry | 44.3 | 1.55                                  | 87.1 | 75-125 |  |  |       |
| Barium                     | 77.0 | 0.400              | "         | 44.3 | 40.7                                  | 81.9 | 75-125 |  |  |       |
| Cadmium                    | 2.02 | 0.200              | "         | 2.21 | 0.147                                 | 84.4 | 75-125 |  |  |       |
| Copper                     | 44.4 | 0.400              | "         | 44.3 | 4.77                                  | 89.6 | 75-125 |  |  |       |
| Lead                       | 25.3 | 0.200              | "         | 22.1 | 5.63                                  | 89.0 | 75-125 |  |  |       |
| Nickel                     | 35.3 | 0.400              | "         | 44.3 | 3.24                                  | 72.5 | 75-125 |  |  | QM-05 |
| Silver                     | 1.90 | 0.0200             | "         | 2.21 | 0.0456                                | 83.8 | 75-125 |  |  |       |
| Zinc                       | 59.1 | 0.400              | "         | 44.3 | 19.7                                  | 89.1 | 75-125 |  |  |       |
| Selenium                   | 4.53 | 0.260              | "         | 4.43 | ND                                    | 102  | 75-125 |  |  |       |

| Matrix Spike Dup (BIA0491-MSD1) |      | Source: 2501103-01 |           |      | Prepared: 01/13/25 Analyzed: 01/14/25 |      |        |       |    |       |
|---------------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|-------|----|-------|
| Arsenic                         | 40.6 | 0.200              | mg/kg dry | 45.3 | 1.55                                  | 86.1 | 75-125 | 1.09  | 25 |       |
| Barium                          | 80.4 | 0.400              | "         | 45.3 | 40.7                                  | 87.4 | 75-125 | 4.30  | 25 |       |
| Cadmium                         | 1.95 | 0.200              | "         | 2.27 | 0.147                                 | 79.4 | 75-125 | 3.48  | 25 |       |
| Copper                          | 45.1 | 0.400              | "         | 45.3 | 4.77                                  | 89.0 | 75-125 | 1.55  | 25 |       |
| Lead                            | 25.1 | 0.200              | "         | 22.7 | 5.63                                  | 85.8 | 75-125 | 1.09  | 25 |       |
| Nickel                          | 35.5 | 0.400              | "         | 45.3 | 3.24                                  | 71.1 | 75-125 | 0.392 | 25 | QM-05 |
| Silver                          | 1.85 | 0.0200             | "         | 2.27 | 0.0456                                | 79.6 | 75-125 | 2.73  | 25 |       |
| Zinc                            | 60.6 | 0.400              | "         | 45.3 | 19.7                                  | 90.2 | 75-125 | 2.45  | 25 |       |
| Selenium                        | 4.49 | 0.260              | "         | 4.53 | ND                                    | 99.1 | 75-125 | 0.796 | 25 |       |

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Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BIA0514 - 3060A Mod**

**Blank (BIA0514-BLK1)**

Prepared & Analyzed: 01/13/25

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BIA0514-BS1)**

Prepared & Analyzed: 01/13/25

Chromium, Hexavalent 25.5 0.30 mg/kg wet 25.0 102 80-120

**Duplicate (BIA0514-DUP1)**

**Source: 2501103-01**

Prepared & Analyzed: 01/13/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BIA0514-MS1)**

**Source: 2501103-01**

Prepared & Analyzed: 01/13/25

Chromium, Hexavalent 31.8 0.30 mg/kg dry 30.3 ND 105 75-125

**Matrix Spike Dup (BIA0514-MSD1)**

**Source: 2501103-01**

Prepared & Analyzed: 01/13/25

Chromium, Hexavalent 30.0 0.30 mg/kg dry 28.2 ND 106 75-125 5.78 20

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

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

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

**Batch BIA0449 - General Preparation**

**Blank (BIA0449-BLK1)**

Prepared: 01/10/25 Analyzed: 01/14/25

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

**LCS (BIA0449-BS1)**

Prepared: 01/10/25 Analyzed: 01/14/25

|           |      |        |          |      |      |        |
|-----------|------|--------|----------|------|------|--------|
| Calcium   | 5.27 | 0.0500 | mg/L wet | 5.00 | 105  | 70-130 |
| Magnesium | 4.99 | 0.0500 | "        | 5.00 | 99.8 | 70-130 |
| Sodium    | 5.50 | 0.0500 | "        | 5.00 | 110  | 70-130 |

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Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN

Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

**Summit Scientific**

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

**Batch BIA0473 - General Preparation**

| Duplicate (BIA0473-DUP1) |      | Source: 2501103-01 |   |  | Prepared & Analyzed: 01/13/25 |  |  |      |  |    |  |
|--------------------------|------|--------------------|---|--|-------------------------------|--|--|------|--|----|--|
| % Solids                 | 91.0 |                    | % |  | 86.8                          |  |  | 4.67 |  | 20 |  |

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline  
Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

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

**Batch BIA0453 - General Preparation**

**Blank (BIA0453-BLK1)**

Prepared: 01/10/25 Analyzed: 01/13/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BIA0453-BS1)**

Prepared: 01/10/25 Analyzed: 01/13/25

Specific Conductance (EC) 1.42 0.0100 mmhos/cm 1.41 100 95-105

**Duplicate (BIA0453-DUP1)**

**Source: 2501103-01**

Prepared: 01/10/25 Analyzed: 01/13/25

Specific Conductance (EC) 0.374 0.0100 mmhos/cm 0.374 0.00 20

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN

Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

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

**Summit Scientific**

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

**Batch BIA0456 - General Preparation**

**LCS (BIA0456-BS1)**

Prepared: 01/10/25 Analyzed: 01/13/25

|    |      |          |      |      |        |
|----|------|----------|------|------|--------|
| pH | 9.04 | pH Units | 9.18 | 98.4 | 95-105 |
|----|------|----------|------|------|--------|

**Duplicate (BIA0456-DUP1)**

**Source: 2501103-01**

Prepared: 01/10/25 Analyzed: 01/13/25

|    |      |          |      |       |    |
|----|------|----------|------|-------|----|
| pH | 8.04 | pH Units | 8.02 | 0.230 | 20 |
|----|------|----------|------|-------|----|

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Broomfield CO, 80020

Project: Noble - Bruntz G16-23 Flowline

Project Number: UWRWE-A3660-ABN  
Project Manager: Mike Medina

**Reported:**  
01/23/25 08:05

### Notes and Definitions

|       |   |
|-------|---|
| QR-04 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.                               |
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| QM-05 | The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.                  |
| DET   | Analyte DETECTED  |
| ND    | Analyte NOT DETECTED at or above the reporting limit  |
| NR    | Not Reported  |
| dry   | Sample results reported on a dry weight basis   |
| RPD   | Relative Percent Difference   |