

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 12, 2024

Daniel Simpson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Houndskeeper HOI-17 Facility

Work Order #2410547

Enclosed are the results of analyses for samples received by Summit Scientific on 10/29/24 18:26. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------|---------------|--------|----------------|----------------|
| BH01@2-3' | 2410547-01 | Soil | 10/29/24 10:30 | 10/29/24 18:26 |
| BH01@3-4' | 2410547-02 | Soil | 10/29/24 10:33 | 10/29/24 18:26 |
| BH02@2-3' | 2410547-04 | Soil | 10/29/24 10:42 | 10/29/24 18:26 |
| BH03@2-3' | 2410547-07 | Soil | 10/29/24 10:50 | 10/29/24 18:26 |
| BH04@2-3' | 2410547-10 | Soil | 10/29/24 11:00 | 10/29/24 18:26 |
| BH05@2-3' | 2410547-13 | Soil | 10/29/24 11:10 | 10/29/24 18:26 |
| BH06@7-8' | 2410547-16 | Soil | 10/29/24 11:49 | 10/29/24 18:26 |
| BH06@9-10' | 2410547-17 | Soil | 10/29/24 11:52 | 10/29/24 18:26 |
| BH07@8-9' | 2410547-18 | Soil | 10/29/24 11:43 | 10/29/24 18:26 |
| BH07@9-10' | 2410547-19 | Soil | 10/29/24 11:47 | 10/29/24 18:26 |
| BH08@4-5' | 2410547-20 | Soil | 10/29/24 10:14 | 10/29/24 18:26 |
| BH08@9-10' | 2410547-21 | Soil | 10/29/24 11:50 | 10/29/24 18:26 |
| BH09@7-8' | 2410547-22 | Soil | 10/29/24 12:31 | 10/29/24 18:26 |
| BH09@9-10' | 2410547-23 | Soil | 10/29/24 12:34 | 10/29/24 18:26 |
| BH10@2-3' | 2410547-24 | Soil | 10/29/24 09:45 | 10/29/24 18:26 |
| BH10@9-10' | 2410547-25 | Soil | 10/29/24 12:21 | 10/29/24 18:26 |
| BH11@0-1' | 2410547-26 | Soil | 10/29/24 10:40 | 10/29/24 18:26 |
| BH11@1-2' | 2410547-27 | Soil | 10/29/24 10:42 | 10/29/24 18:26 |
| BKG01@9-10' | 2410547-30 | Soil | 10/29/24 12:47 | 10/29/24 18:26 |
| BKG02@9-10' | 2410547-31 | Soil | 10/29/24 12:52 | 10/29/24 18:26 |
| BKG03@9-10' | 2410547-32 | Soil | 10/29/24 12:41 | 10/29/24 18:26 |
| BKG04@9-10' | 2410547-33 | Soil | 10/29/24 13:04 | 10/29/24 18:26 |
| BKG05@9-10' | 2410547-34 | Soil | 10/29/24 13:00 | 10/29/24 18:26 |

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.

| | | | |
|--------------------------------------|--|---|--|
| | | Send Data To: | Send Invoice To: |
| Client: Noble/Tasman | | Project Manager: Daniel Simpson | Company: PDC Energy MR NOBLE ENERGY, INC. |
| Address: 6855 W. 119th Ave. | | E-Mail: tas-chevron-5@tasman-geo.com | Project Name/Location: Houndskeeper H017 Facility |
| City/State/Zip: Broomfield/CO/ 80020 | | | AFE#: |
| Phone: 602-881-5716 | | Project Name: Houndskeeper H017 Facility | PO/Billing Codes: |
| Sampler Name: McKenzie Reynolds | | Project Number: | Contact: Pan Peterson |

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | Analysis Requested | | | | | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|--------------------|--------------|-----------|-----------|-----------|-------------|-------------|----------------------|--------------------------------|
| | | | | | HCl | HNO3 | None | Other | Water | Soil | Air-Canister # | Other | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | | HOLD |
| 1 | BH106@7-8' | 10/29/24 | 1149 | 3 | | | X | | | X | | | X | X | X | X | X | X | | SAR, EC, pH by saturated paste |
| 2 | BH106@9-10' | | 1152 | | | | | | | | | | | | | | | | | |
| 3 | BH107@8-9' | | 1143 | | | | | | | | | | | | | | | | | |
| 4 | BH107@9-10' | | 1147 | | | | | | | | | | | | | | | | | |
| 5 | BH108@4-5' | | 1014 | | | | | | | | | | | | | | | | | |
| 6 | BH108@9-10' | | 1150 | | | | | | | | | | | | | | | | | |
| 7 | BH109@7-8' | | 1231 | | | | | | | | | | | | | | | | | |
| 8 | BH109@9-10' | | 1234 | | | | | | | | | | | | | | | | | |
| 9 | BH110@2-3' | | 0945 | | | | | | | | | | | | | | | | | |
| 10 | BH110@9-10' | | 1221 | | | | | | | | | | | | | | | | | |
| 11 | BH110@0-1' | | 1040 | | | | | | | | | | | | | | | | | |
| 12 | BH110@1-2' | | 1042 | | | | | | | | | | | | | | | | | |
| 13 | BH110@3-4' | | 1043 | | | | | | | | | | | | | | | | | |
| 14 | BH110@4-5' | | 1045 | | | | | | | | | | | | | | | | | |
| 15 | BK601@9-10' | | 1247 | 1 | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|----------------------------|-------------------------------------|----------------------------|-------------------|-------------|---------------|
| Relinquished by: <i>McKenzie Reynolds</i> | Date/Time: 10/29/2024 1500 | Received by: Tasman Lock Box | Date/Time: 10/29/2024 1500 | TAT Business Days | Field DO | Notes: |
| | | | | Same Day | Field EC | |
| Relinquished by: <i>Tasman Lock Box</i> | Date/Time: 10/29/24 1820 | Received by: <i>RJ</i> | Date/Time: 10/29/24 1820 | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| | | | | 3 Days | Field Temp. | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Standard | Field Turb. | |
| Temperature Upon Receipt: <u>0.8</u> | | Corrected Temperature: <u>0</u> | | IR gun #: | HNO3 lot #: | |

| | | | |
|--------------------------------------|---|--|--|
| Send Data To: | | Send Invoice To: | |
| Client: Noble/Tasman | Project Manager: Daniel Simpson | Company: PDC Energy <i>Ma Noble Energy, Inc</i> | |
| Address: 6855 W. 119th Ave. | E-Mail: tas-chevron-5@tasman-geo.com | Project Name/Location: <i>Houndskeeper Hol-17 Facility</i> | |
| City/State/Zip: Broomfield/CO/ 80020 | | AFE#: | |
| Phone: 602-881-5716 | Project Name: <i>Houndskeeper Hol-17 Facility</i> | PO/Billing Codes: | |
| Sampler Name: McKenzie Reynolds | Project Number: | Contact: <i>Dan Peterson</i> | |

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | | Analysis Requested | | | | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-------|--------------------|-----------|-----------|-----------|-------------|-------------|----------------------|--------------------------------|
| | | | | | HCl | HNO3 | None | Other | Water | Soil | Air-Canister # | Other | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | | HOLD |
| 1 | BH102-3' | 10/29/24 | 1030 | 3 | | | X | | | X | | | | X | X | X | X | X | | SAR, EC, pH by saturated paste |
| 2 | BH103-4' | | 1033 | | | | X | | | | | | | X | X | X | X | X | | |
| 3 | BH104-5' | | 1036 | | | | X | | | | | | | X | X | X | X | X | | |
| 4 | BH102-3' | | 1042 | | | | X | | | | | | | X | X | X | X | X | | |
| 5 | BH102-3' | | 1045 | | | | X | | | | | | | X | X | X | X | X | | |
| 6 | BH102-4-5' | | 1048 | | | | X | | | | | | | X | X | X | X | X | | |
| 7 | BH103-3' | | 1050 | | | | X | | | | | | | X | X | X | X | X | | |
| 8 | BH103-4' | | 1053 | | | | X | | | | | | | X | X | X | X | X | | |
| 9 | BH103-4-5' | | 1056 | | | | X | | | | | | | X | X | X | X | X | | |
| 10 | BH104-3' | | 1100 | | | | X | | | | | | | X | X | X | X | X | | |
| 11 | BH104-3-4' | | 1103 | | | | X | | | | | | | X | X | X | X | X | | |
| 12 | BH104-4-5' | | 1106 | | | | X | | | | | | | X | X | X | X | X | | |
| 13 | BH105-3' | | 1110 | | | | X | | | | | | | X | X | X | X | X | | |
| 14 | BH105-3-4' | | 1113 | | | | X | | | | | | | X | X | X | X | X | | |
| 15 | BH105-4-5' | | 1116 | | | | X | | | | | | | X | X | X | X | X | | |

| | | | | | | |
|---|----------------------------|-------------------------------------|----------------------------|--------------------|-------------|---------------|
| Relinquished by: <i>McKenzie Reynolds</i> | Date/Time: 10/29/2024 1500 | Received by: Tasman Lock Box | Date/Time: 10/29/2024 1500 | TAT Business Days | Field DO | Notes: |
| | | | | Same Day | Field EC | |
| Relinquished by: <i>Tasman Lock Box</i> | Date/Time: 10/29/24 1820 | Received by: <i>R. [Signature]</i> | Date/Time: 10/29/24 1820 | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| | | | | 3 Days | Field Temp. | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Standard | Field Turb. | |
| Temperature Upon Receipt: <u>6.8</u> | | Corrected Temperature: <u>8</u> | | IR gun #: <u>1</u> | HNO3 lot #: | |

| | | |
|--------------------------------------|---|--|
| Client: Noble/Tasman | Send Data To: Project Manager: Daniel Simpson | Send Invoice To: Company: PDC Energy ^{MP} Noble Energy, Inc |
| Address: 6855 W. 119th Ave. | E-Mail: tas-chevron-5@tasman-geo.com | Project Name/Location: Houndskeeper H01-17 Facility |
| City/State/Zip: Broomfield/CO/ 80020 | | AFE#: |
| Phone: 602-881-5716 | Project Name: <u>Houndskeeper H01-17 Facility</u> | PO/Billing Codes: |
| Sampler Name: McKenzie Reynolds | Project Number: | Contact: <u>Dan Peterson</u> |

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | Analysis Requested | | | | | | Special Instructions | | |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|--------------------|--------------|-----------|-----------|-----------|-------------|----------------------|-------------|--------------------------------|
| | | | | | HCl | HNO3 | None | Other | Water | Soil | Air-Canister # | Other | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | | Boron - HWS | HOLD |
| 1 | BK W209-10' | 10/29/24 | 1252 | 1 | | | X | | | X | | | | | | X | X | | | SAR, EC, pH by saturated paste |
| 2 | BK W309-10' | I | 1241 | I | | | | | | | | | | | | | | | | |
| 3 | BK W409-10' | I | 1304 | I | | | | | | | | | | | | | | | | |
| 4 | BK W509-10' | I | 1300 | I | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|-----------------------------------|-------------------------------------|-----------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>10/29/2024 1500</u> | Received by: Tasman Lock Box | Date/Time: <u>10/29/2024 1500</u> | TAT Business Days | Field DO | Notes: |
| Relinquished by: <u>Tasman Lock Box</u> | Date/Time: <u>10/29/2024 1520</u> | Received by: <u>[Signature]</u> | Date/Time: <u>10/29/2024 1820</u> | Same Day | Field EC | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 1 Day | Field ORP | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 2 Days | Field pH | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 3 Days | Field Temp. | |
| Temperature Upon Receipt: <u>0.8</u> | Corrected Temperature: <u>8</u> | IR gun #: | | Standard | X Field Turb. | |
| | | | HNO3 lot #: | | | |

S₂

3/3

Sample Receipt Checklist

S2 Work Order# 2410547

Client: Noble Casman Client Project ID: Houndkeeper Hol-17 Facility

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

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

Temp (°C) Thermometer #

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

Additional Comments (if any):

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

AS
Custodian Printed Name

10/29/24
Date/Time



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@2-3'
2410547-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHK0037 | 11/01/24 | 11/02/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0431 | 108 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0405 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0431 | 108 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 8.94 | 71.5 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@2-3'
2410547-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0191 | 57.3 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0194 | 58.1 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:30**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@2-3'
2410547-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 2.78 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 72.9 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 4.71 | 0.400 | " | " | " | " | " | " |
| Lead | 6.11 | 0.200 | " | " | " | " | " | " |
| Nickel | 4.71 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0233 | 0.0200 | " | " | " | " | " | " |
| Zinc | 17.4 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 62.0 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 10.9 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 6.26 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.193 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@2-3'
2410547-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-------------|-------|
| | | Limit | | | | | | | | |
| % Solids | 89.5 | | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Specific Conductance (EC) | 0.375 | 0.0100 | | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:30**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| pH | 8.21 | | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@3-4'
2410547-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/02/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0426 | 106 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0405 | 101 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0389 | 97.3 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 9.89 | 79.1 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@3-4'
2410547-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0201 | 60.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0211 | 63.2 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:33**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@3-4'
2410547-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 3.44 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 102 | 0.400 | " | " | " | " | " | " |
| Cadmium | ND | 0.200 | " | " | " | " | " | " |
| Copper | 5.47 | 0.400 | " | " | " | " | " | " |
| Lead | 6.64 | 0.200 | " | " | " | " | " | " |
| Nickel | 6.02 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0337 | 0.0200 | " | " | " | " | " | " |
| Zinc | 19.5 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 80.0 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 10.7 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 7.47 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.208 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH01@3-4'
2410547-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-------------|-------|
| | | Limit | | | | | | | | |
| % Solids | 86.9 | | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Specific Conductance (EC) | 0.444 | 0.0100 | | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:33**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| pH | 8.09 | | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH02@2-3'
2410547-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/02/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0399 | 99.8 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0397 | 99.3 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0397 | 99.3 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 10.2 | 81.3 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH02@2-3'
2410547-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | " |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | " |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | " |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | " |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | " |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | " |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0249 | 74.8 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0233 | 70.0 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:42**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH02@2-3'
2410547-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 3.95 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Barium | 148 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.211 | 0.200 | " | " | " | " | " | " | |
| Copper | 5.19 | 0.400 | " | " | " | " | " | " | |
| Lead | 7.30 | 0.200 | " | " | " | " | " | " | |
| Nickel | 6.31 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0275 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 19.0 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 38.1 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 9.17 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 2.38 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0898 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:42**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH02@2-3'
2410547-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 86.5 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.204 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.45 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH03@2-3'
2410547-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/02/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0445 | 111 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0411 | 103 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0416 | 104 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 10.7 | 85.5 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH03@2-3'
2410547-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0247 | 74.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0243 | 72.8 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:50**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH03@2-3'
2410547-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 3.59 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Barium | 122 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.212 | 0.200 | " | " | " | " | " | " | |
| Copper | 4.72 | 0.400 | " | " | " | " | " | " | |
| Lead | 6.70 | 0.200 | " | " | " | " | " | " | |
| Nickel | 5.81 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0243 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 17.6 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 46.2 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 12.5 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 3.33 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.112 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:50**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH03@2-3'
2410547-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 89.0 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.265 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.21 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH04@2-3'
2410547-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0452 | 113 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0408 | 102 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0436 | 109 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 9.19 | 73.5 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH04@2-3'
2410547-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0282 | 84.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0277 | 83.1 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:00**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH04@2-3'
2410547-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 3.15 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 120 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.200 | 0.200 | " | " | " | " | " | " |
| Copper | 4.83 | 0.400 | " | " | " | " | " | " |
| Lead | 6.44 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.31 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0258 | 0.0200 | " | " | " | " | " | " |
| Zinc | 17.9 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 55.0 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 12.5 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 5.85 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.185 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:00**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH04@2-3'
2410547-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 89.8 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.361 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.42 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH05@2-3'
2410547-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0427 | 107 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0399 | 99.7 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0390 | 97.5 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 8.88 | 71.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH05@2-3'
2410547-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0262 | 78.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0244 | 73.3 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:10**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH05@2-3'
2410547-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 2.88 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 72.4 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.251 | 0.200 | " | " | " | " | " | " |
| Copper | 5.13 | 0.400 | " | " | " | " | " | " |
| Lead | 6.26 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.08 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0266 | 0.0200 | " | " | " | " | " | " |
| Zinc | 18.0 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0438 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 42.8 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 5.71 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 2.49 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0949 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:10**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH05@2-3'
2410547-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|-----------------|-------------|---|---|---------|----------|----------|-------------|
| % Solids | 90.9 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|-----------------|-------------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.248 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.28 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@7-8'
2410547-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.24 | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 4.1 | 0.50 | " | 100 | " | " | 11/04/24 | " | |
| Xylenes (total) | ND | 0.010 | " | 1 | " | " | 11/03/24 | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | 0.30 | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 1100 | 50 | " | 100 | " | " | 11/04/24 | " | |

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0678 | 169 % | 50-150 | " | " | " | 11/03/24 | " | S-02 |
| Surrogate: Toluene-d8 | 0.0386 | 96.5 % | 50-150 | " | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.198 | 494 % | 50-150 | " | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 1300 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | 91 | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 12.4 | 99.4 % | 30-150 | " | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@7-8'
2410547-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|--------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.144 | 0.0500 | mg/kg | 10 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (b) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (k) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Chrysene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Dibenz (a,h) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluorene | 0.147 | 0.0500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| 1-Methylnaphthalene | 2.59 | 0.0500 | " | " | " | " | " | " | E |
| 2-Methylnaphthalene | 5.57 | 0.0500 | " | " | " | " | " | " | E |

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0712 | 214 % | 40-150 | | " | " | " | " | S-02 |
| Surrogate: Fluoranthene-d10 | 0.0294 | 88.2 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:49**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@7-8'
2410547-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 4.68 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 227 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.332 | 0.200 | " | " | " | " | " | " |
| Copper | 5.74 | 0.400 | " | " | " | " | " | " |
| Lead | 8.21 | 0.200 | " | " | " | " | " | " |
| Nickel | 6.90 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0265 | 0.0200 | " | " | " | " | " | " |
| Zinc | 21.3 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 26.3 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 6.06 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 50.6 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.31 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:49**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@7-8'
2410547-16 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 84.9 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.280 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:49**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.54 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@9-10'
2410547-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.10 | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 0.68 | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | 0.17 | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 52 | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0687 | 172 % | 50-150 | " | " | " | " | " | S-02 |
| Surrogate: Toluene-d8 | 0.0367 | 91.7 % | 50-150 | " | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.111 | 276 % | 50-150 | " | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 690 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 10.4 | 83.4 % | 30-150 | " | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@9-10'
2410547-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|---------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.0507 | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | 0.0155 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | 0.0301 | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | 0.0168 | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | 0.0245 | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | 0.00876 | 0.00500 | " | " | " | " | " | " | |
| Chrysene | 0.0257 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | 0.0681 | 0.00500 | " | " | " | " | " | " | |
| Fluorene | 0.0554 | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | 0.0128 | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.0726 | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | 0.555 | 0.250 | " | 50 | " | " | 11/03/24 | " | |
| 2-Methylnaphthalene | 1.45 | 0.250 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0791 | 237 % | 40-150 | | " | " | 10/31/24 | " | S-02 |
| Surrogate: Fluoranthene-d10 | 0.0217 | 65.2 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 8.34 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@9-10'
2410547-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|-------|
| Barium | 225 | 0.400 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Cadmium | 0.491 | 0.200 | " | " | " | " | " | " | |
| Copper | 8.36 | 0.400 | " | " | " | " | " | " | |
| Lead | 12.0 | 0.200 | " | " | " | " | " | " | |
| Nickel | 14.1 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0324 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 49.2 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 566 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 56.9 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 59.3 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.636 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 84.4 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH06@9-10'
2410547-17 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.293 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 9.08 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@8-9'
2410547-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.52 | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 10 | 0.50 | " | 100 | " | " | 11/04/24 | " | |
| Xylenes (total) | 85 | 1.0 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | 81 | 0.50 | " | " | " | " | " | " | E |
| 1,3,5-Trimethylbenzene | 61 | 0.50 | " | " | " | " | " | " | E |
| Naphthalene | 0.46 | 0.0038 | " | 1 | " | " | 11/03/24 | " | |
| Gasoline Range Hydrocarbons | 2600 | 50 | " | 100 | " | " | 11/04/24 | " | |

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0641 | 160 % | 50-150 | " | " | " | 11/03/24 | " | S-02 |
| <i>Surrogate: Toluene-d8</i> | 0.0380 | 95.0 % | 50-150 | " | " | " | " | " | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.298 | 744 % | 50-150 | " | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 3600 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | 230 | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:43**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@8-9'
2410547-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|--------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.151 | 0.0500 | mg/kg | 10 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (b) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (k) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Chrysene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Dibenz (a,h) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluorene | 0.168 | 0.0500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| 1-Methylnaphthalene | 1.43 | 0.500 | " | 100 | " | " | 11/03/24 | " | |
| 2-Methylnaphthalene | 4.14 | 0.500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.241 | 722 % | 40-150 | | " | " | 10/31/24 | " | S-02 |
| Surrogate: Fluoranthene-d10 | 0.0262 | 78.7 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:43**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@8-9'
2410547-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 4.25 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 310 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.254 | 0.200 | " | " | " | " | " | " |
| Copper | 6.38 | 0.400 | " | " | " | " | " | " |
| Lead | 8.70 | 0.200 | " | " | " | " | " | " |
| Nickel | 7.36 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0242 | 0.0200 | " | " | " | " | " | " |
| Zinc | 24.6 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 31.4 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 8.61 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 46.0 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.88 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:43**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@8-9'
2410547-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 87.2 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.292 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:43**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.46 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@9-10'
2410547-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.75 | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | E |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 10 | 0.50 | " | 100 | " | " | 11/04/24 | " | |
| Xylenes (total) | 68 | 1.0 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | 76 | 0.50 | " | " | " | " | " | " | E |
| 1,3,5-Trimethylbenzene | 54 | 0.50 | " | " | " | " | " | " | |
| Naphthalene | 0.47 | 0.0038 | " | 1 | " | " | 11/03/24 | " | |
| Gasoline Range Hydrocarbons | 2400 | 50 | " | 100 | " | " | 11/04/24 | " | |

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0848 | 212 % | 50-150 | " | " | " | 11/03/24 | " | S-02 |
| <i>Surrogate: Toluene-d8</i> | 0.0403 | 101 % | 50-150 | " | " | " | " | " | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.361 | 903 % | 50-150 | " | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 3700 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | 260 | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| <i>Surrogate: o-Terphenyl</i> | 13.9 | 111 % | 30-150 | " | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@9-10'
2410547-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|--------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.216 | 0.0500 | mg/kg | 10 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (b) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (k) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Chrysene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Dibenz (a,h) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluorene | 0.246 | 0.0500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| 1-Methylnaphthalene | 2.18 | 1.00 | " | 200 | " | " | 11/03/24 | " | |
| 2-Methylnaphthalene | 6.38 | 1.00 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.206 | 617 % | 40-150 | | " | " | 10/31/24 | " | S-02 |
| Surrogate: Fluoranthene-d10 | 0.0273 | 81.9 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:47**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@9-10'
2410547-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 5.44 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Barium | 189 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.337 | 0.200 | " | " | " | " | " | " | |
| Copper | 5.83 | 0.400 | " | " | " | " | " | " | |
| Lead | 8.24 | 0.200 | " | " | " | " | " | " | |
| Nickel | 6.68 | 0.400 | " | " | " | " | " | " | |
| Silver | ND | 0.0200 | " | " | " | " | " | " | |
| Zinc | 23.8 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 29.1 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 12.9 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 59.2 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.30 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH07@9-10'
2410547-19 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-------------|-------|
| | | Limit | | | | | | | | |
| % Solids | 86.4 | | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Specific Conductance (EC) | 0.448 | 0.0100 | | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:47**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| pH | 8.20 | | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@4-5'
2410547-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:14**

| 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 | 100 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0420 | 105 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 9.56 | 76.5 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@4-5'
2410547-20 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1334 | 10/30/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0208 | 62.3 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0222 | 66.5 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:14**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@4-5'
2410547-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 6.29 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 60.5 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.363 | 0.200 | " | " | " | " | " | " |
| Copper | 5.99 | 0.400 | " | " | " | " | " | " |
| Lead | 8.84 | 0.200 | " | " | " | " | " | " |
| Nickel | 6.01 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0421 | 0.0200 | " | " | " | " | " | " |
| Zinc | 22.9 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 28.8 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 12.9 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 20.4 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.794 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:14**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@4-5'
2410547-20 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 86.9 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.302 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:14**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.37 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@9-10'
2410547-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0401 | 100 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0387 | 96.7 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0406 | 102 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 9.35 | 74.8 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@9-10'
2410547-21 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 11/02/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0359 | 108 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0320 | 95.9 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 11:50**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@9-10'
2410547-21 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 5.63 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 47.4 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.411 | 0.200 | " | " | " | " | " | " |
| Copper | 7.59 | 0.400 | " | " | " | " | " | " |
| Lead | 11.4 | 0.200 | " | " | " | " | " | " |
| Nickel | 7.80 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0291 | 0.0200 | " | " | " | " | " | " |
| Zinc | 34.6 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 16.1 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 6.32 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 33.3 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 1.78 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 11:50**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH08@9-10'
2410547-21 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 85.2 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.236 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.82 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@7-8'
2410547-22 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|---------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.079 | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | 0.0067 | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | 0.18 | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 65 | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0614 | 153 % | 50-150 | " | " | " | " | " | S-02 |
| Surrogate: Toluene-d8 | 0.0372 | 92.9 % | 50-150 | " | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.139 | 348 % | 50-150 | " | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 1900 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | 150 | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 12.1 | 96.5 % | 30-150 | " | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@7-8'
2410547-22 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|---------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.351 | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | E |
| 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 | 0.0177 | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | 0.0196 | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | 0.0108 | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | 1.46 | 0.250 | " | 50 | " | " | 11/03/24 | " | |
| 2-Methylnaphthalene | 3.81 | 0.250 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0319 | 95.6 % | 40-150 | | " | " | 10/31/24 | " | |
| Surrogate: Fluoranthene-d10 | 0.0365 | 110 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:31**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@7-8'
2410547-22 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 3.81 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 177 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.302 | 0.200 | " | " | " | " | " | " |
| Copper | 5.32 | 0.400 | " | " | " | " | " | " |
| Lead | 7.13 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.95 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0300 | 0.0200 | " | " | " | " | " | " |
| Zinc | 18.6 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 54.7 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 6.25 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 84.0 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.87 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:31**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@7-8'
2410547-22 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 84.7 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.366 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:31**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.43 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@9-10'
2410547-23 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|-------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | 3.7 | 0.20 | mg/kg | 100 | BHK0037 | 11/01/24 | 11/04/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | 1 | " | " | 11/03/24 | " | |
| Ethylbenzene | 17 | 0.50 | " | 100 | " | " | 11/04/24 | " | |
| Xylenes (total) | 220 | 100 | " | 10000 | " | " | 11/04/24 | " | |
| 1,2,4-Trimethylbenzene | 73 | 0.50 | " | 100 | " | " | 11/04/24 | " | |
| 1,3,5-Trimethylbenzene | 54 | 0.50 | " | " | " | " | " | " | |
| Naphthalene | 0.41 | 0.0038 | " | 1 | " | " | 11/03/24 | " | |
| Gasoline Range Hydrocarbons | 3400 | 50 | " | 100 | " | " | 11/04/24 | " | |

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0748 | 187 % | 50-150 | | " | " | 11/03/24 | " | S-02 |
| <i>Surrogate: Toluene-d8</i> | 0.0487 | 122 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.209 | 523 % | 50-150 | | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|-------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | 1900 | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/05/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| <i>Surrogate: o-Terphenyl</i> | 13.0 | 104 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@9-10'
2410547-23 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|--------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | 0.353 | 0.0500 | mg/kg | 10 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (a) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (b) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Benzo (k) fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Chrysene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Dibenz (a,h) anthracene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluoranthene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Fluorene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Indeno (1,2,3-cd) pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| Pyrene | ND | 0.0500 | " | " | " | " | " | " | R-05 |
| 1-Methylnaphthalene | 1.51 | 0.500 | " | 100 | " | " | 11/03/24 | " | |
| 2-Methylnaphthalene | 4.17 | 0.500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0201 | 60.3 % | 40-150 | | " | " | 10/31/24 | " | |
| Surrogate: Fluoranthene-d10 | 0.0136 | 40.8 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:34**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@9-10'
2410547-23 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 5.85 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 74.3 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.301 | 0.200 | " | " | " | " | " | " |
| Copper | 6.13 | 0.400 | " | " | " | " | " | " |
| Lead | 8.32 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.66 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0236 | 0.0200 | " | " | " | " | " | " |
| Zinc | 20.1 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 2290 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 76.1 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 44.7 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.250 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:34**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH09@9-10'
2410547-23 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|-----------------|-------------|---|---|---------|----------|----------|-------------|
| % Solids | 88.0 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|-----------------|-------------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.558 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:34**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.58 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@2-3'
2410547-24 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Benzene | ND | 0.0020 | | mg/kg | 1 | BHK0037 | 11/01/24 | 11/04/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0404 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0403 | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0406 | 102 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| C10-C28 (DRO) | ND | 50 | | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | | " | " | " | " | " | " | |

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: o-Terphenyl | 8.36 | 66.9 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@2-3'
2410547-24 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (a) anthracene | 0.00952 | 0.00500 | " | " | " | " | " | " | " |
| Benzo (a) pyrene | 0.00646 | 0.00500 | " | " | " | " | " | " | " |
| Benzo (b) fluoranthene | 0.00895 | 0.00500 | " | " | " | " | " | " | " |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Chrysene | 0.00952 | 0.00500 | " | " | " | " | " | " | " |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Fluoranthene | 0.0258 | 0.00500 | " | " | " | " | " | " | " |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | " |
| Indeno (1,2,3-cd) pyrene | 0.00670 | 0.00500 | " | " | " | " | " | " | " |
| Pyrene | 0.0132 | 0.00500 | " | " | " | " | " | " | " |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | " |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | " |

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0161 | 48.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0269 | 80.6 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 09:45**

| 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 - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@2-3'
2410547-24 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 2.73 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 96.4 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.317 | 0.200 | " | " | " | " | " | " |
| Copper | 6.14 | 0.400 | " | " | " | " | " | " |
| Lead | 8.59 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.98 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0381 | 0.0200 | " | " | " | " | " | " |
| Zinc | 23.7 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 62.4 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 9.32 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 5.90 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.184 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 09:45**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@2-3'
2410547-24 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 85.0 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.184 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.19 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@9-10'
2410547-25 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0414 | 104 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0395 | 98.8 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0407 | 102 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 10.1 | 80.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@9-10'
2410547-25 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0209 | 62.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0277 | 83.0 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:21**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@9-10'
2410547-25 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 4.39 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Barium | 66.8 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.243 | 0.200 | " | " | " | " | " | " | |
| Copper | 4.41 | 0.400 | " | " | " | " | " | " | |
| Lead | 5.87 | 0.200 | " | " | " | " | " | " | |
| Nickel | 4.87 | 0.400 | " | " | " | " | " | " | |
| Silver | ND | 0.0200 | " | " | " | " | " | " | |
| Zinc | 15.8 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 29.0 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 7.40 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 11.2 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.480 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH10@9-10'
2410547-25 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 87.3 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.0802 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:21**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.37 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@0-1'
2410547-26 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0409 | 102 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0401 | 100 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0405 | 101 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 7.89 | 63.1 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@0-1'
2410547-26 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0252 | 75.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0226 | 67.7 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:40**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@0-1'
2410547-26 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 1.88 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 73.2 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.238 | 0.200 | " | " | " | " | " | " |
| Copper | 5.11 | 0.400 | " | " | " | " | " | " |
| Lead | 6.56 | 0.200 | " | " | " | " | " | " |
| Nickel | 4.49 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0203 | 0.0200 | " | " | " | " | " | " |
| Zinc | 18.3 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 223 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 33.0 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 4.59 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0759 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:40**

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@0-1'
2410547-26 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 86.2 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.0562 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 6.77 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@1-2'
2410547-27 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BHK0037 | 11/01/24 | 11/03/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | 0.0429 | 107 % | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | 0.0404 | 101 % | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 0.0408 | 102 % | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BHK0038 | 11/01/24 | 11/03/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | 9.34 | 74.7 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@1-2'
2410547-27 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BHJ1386 | 10/31/24 | 10/31/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0181 | 54.3 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | 0.0251 | 75.2 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 10:42**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@1-2'
2410547-27 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method |
|----------|--------|--------|-----------|----------|---------|----------|----------|-----------|
| Arsenic | 2.13 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B |
| Barium | 93.5 | 0.400 | " | " | " | " | " | " |
| Cadmium | 0.274 | 0.200 | " | " | " | " | " | " |
| Copper | 6.20 | 0.400 | " | " | " | " | " | " |
| Lead | 8.97 | 0.200 | " | " | " | " | " | " |
| Nickel | 5.65 | 0.400 | " | " | " | " | " | " |
| Silver | 0.0471 | 0.0200 | " | " | " | " | " | " |
| Zinc | 23.2 | 0.400 | " | " | " | " | " | " |
| Selenium | ND | 0.260 | " | " | " | " | " | " |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 206 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 49.7 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 1.81 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0294 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 10:42**

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

Summit Scientific

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



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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BH11@1-2'
2410547-27 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

| | | | | | | | |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 85.4 | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 1.02 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 10:42**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 6.17 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG01@9-10'
2410547-30 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHK0251 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 6.47 | 0.200 | mg/kg dry | 1 | BHK0416 | 11/08/24 | 11/11/24 | EPA 6020B | |
| Barium | 56.0 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.447 | 0.200 | " | " | " | " | " | " | |
| Copper | 7.31 | 0.400 | " | " | " | " | " | " | |
| Lead | 15.2 | 0.200 | " | " | " | " | " | " | |
| Nickel | 4.88 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0482 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 22.0 | 0.400 | " | " | " | " | " | " | |
| Selenium | 0.283 | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 41.9 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 40.6 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 169 | 0.0500 | " | " | " | " | " | " | |

Calculated Analysis

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG01@9-10'
2410547-30 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 4.46 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 85.5 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 3.19 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:47**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.66 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG02@9-10'
2410547-31 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHK0253 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 4.67 | 0.200 | mg/kg dry | 1 | BHK0360 | 11/07/24 | 11/09/24 | EPA 6020B | |
| Barium | 195 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.461 | 0.200 | " | " | " | " | " | " | |
| Copper | 9.74 | 0.400 | " | " | " | " | " | " | |
| Lead | 17.4 | 0.200 | " | " | " | " | " | " | |
| Nickel | 3.41 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.122 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 15.1 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 339 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 210 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 295 | 0.0500 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG02@9-10'
2410547-31 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.10 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 86.9 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 1.57 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:52**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.00 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG03@9-10'
2410547-32 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHK0253 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 2.58 | 0.200 | mg/kg dry | 1 | BHK0360 | 11/07/24 | 11/09/24 | EPA 6020B | |
| Barium | 49.2 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.521 | 0.200 | " | " | " | " | " | " | |
| Copper | 4.40 | 0.400 | " | " | " | " | " | " | |
| Lead | 7.47 | 0.200 | " | " | " | " | " | " | |
| Nickel | 11.4 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0293 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 42.9 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 95.7 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 85.6 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 174 | 0.0500 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG03@9-10'
2410547-32 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.11 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 89.0 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.117 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 12:41**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.45 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG04@9-10'
2410547-33 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHK0253 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 3.31 | 0.200 | mg/kg dry | 1 | BHK0360 | 11/07/24 | 11/09/24 | EPA 6020B | |
| Barium | 169 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.330 | 0.200 | " | " | " | " | " | " | |
| Copper | 4.13 | 0.400 | " | " | " | " | " | " | |
| Lead | 6.37 | 0.200 | " | " | " | " | " | " | |
| Nickel | 4.76 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0308 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 16.6 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 25.9 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 5.44 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 1.25 | 0.0500 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG04@9-10'
2410547-33 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0583 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 86.2 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.150 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 13:04**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.74 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG05@9-10'
2410547-34 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Boron | ND | 2.00 | mg/L | 1 | BHK0253 | 11/06/24 | 11/07/24 | EPA 6020B | |

Total Metals by EPA 6020B

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 4.22 | 0.200 | mg/kg dry | 1 | BHK0360 | 11/07/24 | 11/09/24 | EPA 6020B | |
| Barium | 231 | 0.400 | " | " | " | " | " | " | |
| Cadmium | 0.538 | 0.200 | " | " | " | " | " | " | |
| Copper | 5.18 | 0.400 | " | " | " | " | " | " | |
| Lead | 10.6 | 0.200 | " | " | " | " | " | " | |
| Nickel | 5.15 | 0.400 | " | " | " | " | " | " | |
| Silver | 0.0395 | 0.0200 | " | " | " | " | " | " | |
| Zinc | 19.4 | 0.400 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BHK0439 | 11/08/24 | 11/11/24 | EPA 7196A | |

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

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 19.0 | 0.0500 | mg/L dry | 1 | BHK0195 | 11/05/24 | 11/08/24 | EPA 6020B | |
| Magnesium | 5.79 | 0.0500 | " | " | " | " | " | " | |
| Sodium | 17.9 | 0.0500 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

BKG05@9-10'
2410547-34 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.923 | 0.00100 | units | 1 | BHK0418 | 11/08/24 | 11/08/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|-------------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 84.4 | | % | 1 | BHK0115 | 11/04/24 | 11/04/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.135 | 0.0100 | mmhos/cm | 1 | BHK0196 | 11/05/24 | 11/08/24 | EPA 120.1 | |

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

Date Sampled: **10/29/24 13:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.90 | | pH Units | 1 | BHK0197 | 11/05/24 | 11/08/24 | EPA 9045D | |

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHK0037 - EPA 5030 Soil MS

Blank (BHK0037-BLK1)

Prepared: 11/01/24 Analyzed: 11/02/24

| | | | | | | | | | | |
|---|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0438 | | " | 0.0400 | | 109 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0397 | | " | 0.0400 | | 99.2 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0410 | | " | 0.0400 | | 103 | 50-150 | | | |

LCS (BHK0037-BS1)

Prepared: 11/01/24 Analyzed: 11/02/24

| | | | | | | | | | | |
|---|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.101 | 0.0020 | mg/kg | 0.100 | | 101 | 70-130 | | | |
| Toluene | 0.0981 | 0.0050 | " | 0.100 | | 98.1 | 70-130 | | | |
| Ethylbenzene | 0.0882 | 0.0050 | " | 0.100 | | 88.2 | 70-130 | | | |
| m,p-Xylene | 0.190 | 0.010 | " | 0.200 | | 95.1 | 70-130 | | | |
| o-Xylene | 0.0955 | 0.0050 | " | 0.100 | | 95.5 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0843 | 0.0050 | " | 0.100 | | 84.3 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0838 | 0.0050 | " | 0.100 | | 83.8 | 70-130 | | | |
| Naphthalene | 0.0810 | 0.0038 | " | 0.100 | | 81.0 | 70-130 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0440 | | " | 0.0400 | | 110 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0405 | | " | 0.0400 | | 101 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0403 | | " | 0.0400 | | 101 | 50-150 | | | |

Matrix Spike (BHK0037-MS1)

Source: 2410547-01

Prepared: 11/01/24 Analyzed: 11/02/24

| | | | | | | | | | | |
|---|--------|--------|-------|--------|----|------|--------|--|--|-------|
| Benzene | 0.0665 | 0.0020 | mg/kg | 0.100 | ND | 66.5 | 70-130 | | | QM-05 |
| Toluene | 0.0649 | 0.0050 | " | 0.100 | ND | 64.9 | 70-130 | | | QM-05 |
| Ethylbenzene | 0.0686 | 0.0050 | " | 0.100 | ND | 68.6 | 70-130 | | | QM-05 |
| m,p-Xylene | 0.118 | 0.010 | " | 0.200 | ND | 59.1 | 70-130 | | | QM-05 |
| o-Xylene | 0.0745 | 0.0050 | " | 0.100 | ND | 74.5 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0511 | 0.0050 | " | 0.100 | ND | 51.1 | 70-130 | | | QM-05 |
| 1,3,5-Trimethylbenzene | 0.0657 | 0.0050 | " | 0.100 | ND | 65.7 | 70-130 | | | QM-05 |
| Naphthalene | 0.0486 | 0.0038 | " | 0.100 | ND | 48.6 | 70-130 | | | QM-05 |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 0.0417 | | " | 0.0400 | | 104 | 50-150 | | | |
| <i>Surrogate: Toluene-d8</i> | 0.0395 | | " | 0.0400 | | 98.8 | 50-150 | | | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | 0.0391 | | " | 0.0400 | | 97.6 | 50-150 | | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHK0037 - EPA 5030 Soil MS

| Matrix Spike Dup (BHK0037-MSD1) | Source: 2410547-01 | | | Prepared: 11/01/24 Analyzed: 11/02/24 | | | | | | |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|------|----|-------|
| Benzene | 0.0720 | 0.0020 | mg/kg | 0.100 | ND | 72.0 | 70-130 | 7.84 | 30 | |
| Toluene | 0.0725 | 0.0050 | " | 0.100 | ND | 72.5 | 70-130 | 11.2 | 30 | |
| Ethylbenzene | 0.0722 | 0.0050 | " | 0.100 | ND | 72.2 | 70-130 | 4.99 | 30 | |
| m,p-Xylene | 0.128 | 0.010 | " | 0.200 | ND | 63.8 | 70-130 | 7.71 | 30 | QM-05 |
| o-Xylene | 0.0802 | 0.0050 | " | 0.100 | ND | 80.2 | 70-130 | 7.41 | 30 | |
| 1,2,4-Trimethylbenzene | 0.0572 | 0.0050 | " | 0.100 | ND | 57.2 | 70-130 | 11.3 | 30 | QM-05 |
| 1,3,5-Trimethylbenzene | 0.0717 | 0.0050 | " | 0.100 | ND | 71.7 | 70-130 | 8.65 | 30 | |
| Naphthalene | 0.0499 | 0.0038 | " | 0.100 | ND | 49.9 | 70-130 | 2.68 | 30 | QM-05 |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0442 | | " | 0.0400 | | 111 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0426 | | " | 0.0400 | | 106 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0418 | | " | 0.0400 | | 105 | 50-150 | | | |

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHK0038 - EPA 3550A

Blank (BHK0038-BLK1)

Prepared: 11/01/24 Analyzed: 11/02/24

| | | | | | | | | | | | |
|--------------------------------|------|----|-------|------|--|-----|--|--------|--|--|--|
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | | |
| C28-C36 (ORO) | ND | 50 | " | | | | | | | | |
| Surrogate: <i>o</i> -Terphenyl | 14.8 | | " | 12.5 | | 118 | | 30-150 | | | |

LCS (BHK0038-BS1)

Prepared: 11/01/24 Analyzed: 11/03/24

| | | | | | | | | | | | |
|--------------------------------|------|----|-------|------|--|-----|--|--------|--|--|--|
| C10-C28 (DRO) | 583 | 50 | mg/kg | 500 | | 117 | | 70-130 | | | |
| Surrogate: <i>o</i> -Terphenyl | 12.7 | | " | 12.5 | | 102 | | 30-150 | | | |

Matrix Spike (BHK0038-MS1)

Source: 2410547-01

Prepared: 11/01/24 Analyzed: 11/03/24

| | | | | | | | | | | | |
|--------------------------------|------|----|-------|------|------|------|--|--------|--|--|--|
| C10-C28 (DRO) | 519 | 50 | mg/kg | 500 | 37.6 | 96.2 | | 70-130 | | | |
| Surrogate: <i>o</i> -Terphenyl | 12.2 | | " | 12.5 | | 97.9 | | 30-150 | | | |

Matrix Spike Dup (BHK0038-MSD1)

Source: 2410547-01

Prepared: 11/01/24 Analyzed: 11/03/24

| | | | | | | | | | | | |
|--------------------------------|------|----|-------|------|------|------|--|--------|------|----|--|
| C10-C28 (DRO) | 526 | 50 | mg/kg | 500 | 37.6 | 97.6 | | 70-130 | 1.34 | 20 | |
| Surrogate: <i>o</i> -Terphenyl | 12.0 | | " | 12.5 | | 95.9 | | 30-150 | | | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ1334 - EPA 5030 Soil MS

Blank (BHJ1334-BLK1)

Prepared: 10/30/24 Analyzed: 10/31/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0279 | | " | 0.0333 | | 83.6 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0276 | | " | 0.0333 | | 82.8 | 40-150 | | | |

LCS (BHJ1334-BS1)

Prepared: 10/30/24 Analyzed: 10/31/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0201 | 0.00500 | mg/kg | 0.0333 | | 60.3 | 31-137 | | | |
| Anthracene | 0.0218 | 0.00500 | " | 0.0333 | | 65.3 | 30-120 | | | |
| Benzo (a) anthracene | 0.0225 | 0.00500 | " | 0.0333 | | 67.6 | 30-120 | | | |
| Benzo (a) pyrene | 0.0212 | 0.00500 | " | 0.0333 | | 63.6 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0266 | 0.00500 | " | 0.0333 | | 79.7 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0259 | 0.00500 | " | 0.0333 | | 77.8 | 30-120 | | | |
| Chrysene | 0.0205 | 0.00500 | " | 0.0333 | | 61.5 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0154 | 0.00500 | " | 0.0333 | | 46.3 | 30-120 | | | |
| Fluoranthene | 0.0221 | 0.00500 | " | 0.0333 | | 66.2 | 30-120 | | | |
| Fluorene | 0.0208 | 0.00500 | " | 0.0333 | | 62.5 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0152 | 0.00500 | " | 0.0333 | | 45.5 | 30-120 | | | |
| Pyrene | 0.0269 | 0.00500 | " | 0.0333 | | 80.6 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0213 | 0.00500 | " | 0.0333 | | 64.0 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0213 | 0.00500 | " | 0.0333 | | 64.0 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0212 | | " | 0.0333 | | 63.7 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0223 | | " | 0.0333 | | 66.9 | 40-150 | | | |

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ1334 - EPA 5030 Soil MS

| Matrix Spike (BHJ1334-MS1) | Source: 2410547-01 | | | Prepared: 10/30/24 Analyzed: 10/31/24 | | | | | |
|---|---------------------------|---------|----------|---------------------------------------|----|-------------|---------------|--|--|
| Acenaphthene | 0.0136 | 0.00500 | mg/kg | 0.0333 | ND | 40.9 | 31-137 | | |
| Anthracene | 0.0149 | 0.00500 | " | 0.0333 | ND | 44.6 | 30-120 | | |
| Benzo (a) anthracene | 0.0157 | 0.00500 | " | 0.0333 | ND | 47.1 | 30-120 | | |
| Benzo (a) pyrene | 0.0186 | 0.00500 | " | 0.0333 | ND | 55.7 | 30-120 | | |
| Benzo (b) fluoranthene | 0.0235 | 0.00500 | " | 0.0333 | ND | 70.5 | 30-120 | | |
| Benzo (k) fluoranthene | 0.0224 | 0.00500 | " | 0.0333 | ND | 67.1 | 30-120 | | |
| Chrysene | 0.0144 | 0.00500 | " | 0.0333 | ND | 43.2 | 30-120 | | |
| Dibenz (a,h) anthracene | 0.0134 | 0.00500 | " | 0.0333 | ND | 40.2 | 30-120 | | |
| Fluoranthene | 0.0155 | 0.00500 | " | 0.0333 | ND | 46.6 | 30-120 | | |
| Fluorene | 0.0146 | 0.00500 | " | 0.0333 | ND | 43.8 | 30-120 | | |
| Indeno (1,2,3-cd) pyrene | 0.0143 | 0.00500 | " | 0.0333 | ND | 42.9 | 30-120 | | |
| Pyrene | 0.0191 | 0.00500 | " | 0.0333 | ND | 57.2 | 35-142 | | |
| 1-Methylnaphthalene | 0.0156 | 0.00500 | " | 0.0333 | ND | 46.8 | 15-130 | | |
| 2-Methylnaphthalene | 0.0159 | 0.00500 | " | 0.0333 | ND | 47.6 | 15-130 | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0144</i> | | <i>"</i> | <i>0.0333</i> | | <i>43.1</i> | <i>40-150</i> | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0151</i> | | <i>"</i> | <i>0.0333</i> | | <i>45.3</i> | <i>40-150</i> | | |

| Matrix Spike Dup (BHJ1334-MSD1) | Source: 2410547-01 | | | Prepared: 10/30/24 Analyzed: 10/31/24 | | | | | |
|---|---------------------------|---------|----------|---------------------------------------|----|-------------|---------------|------|----|
| Acenaphthene | 0.0150 | 0.00500 | mg/kg | 0.0333 | ND | 45.1 | 31-137 | 9.78 | 30 |
| Anthracene | 0.0164 | 0.00500 | " | 0.0333 | ND | 49.2 | 30-120 | 9.78 | 30 |
| Benzo (a) anthracene | 0.0175 | 0.00500 | " | 0.0333 | ND | 52.4 | 30-120 | 10.7 | 30 |
| Benzo (a) pyrene | 0.0206 | 0.00500 | " | 0.0333 | ND | 61.7 | 30-120 | 10.1 | 30 |
| Benzo (b) fluoranthene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.3 | 30-120 | 11.7 | 30 |
| Benzo (k) fluoranthene | 0.0243 | 0.00500 | " | 0.0333 | ND | 72.8 | 30-120 | 8.19 | 30 |
| Chrysene | 0.0162 | 0.00500 | " | 0.0333 | ND | 48.6 | 30-120 | 11.8 | 30 |
| Dibenz (a,h) anthracene | 0.0136 | 0.00500 | " | 0.0333 | ND | 40.7 | 30-120 | 1.41 | 30 |
| Fluoranthene | 0.0184 | 0.00500 | " | 0.0333 | ND | 55.2 | 30-120 | 16.8 | 30 |
| Fluorene | 0.0160 | 0.00500 | " | 0.0333 | ND | 48.0 | 30-120 | 9.11 | 30 |
| Indeno (1,2,3-cd) pyrene | 0.0156 | 0.00500 | " | 0.0333 | ND | 46.9 | 30-120 | 8.88 | 30 |
| Pyrene | 0.0229 | 0.00500 | " | 0.0333 | ND | 68.6 | 35-142 | 18.0 | 30 |
| 1-Methylnaphthalene | 0.0152 | 0.00500 | " | 0.0333 | ND | 45.7 | 15-130 | 2.40 | 50 |
| 2-Methylnaphthalene | 0.0157 | 0.00500 | " | 0.0333 | ND | 47.0 | 15-130 | 1.21 | 50 |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0151</i> | | <i>"</i> | <i>0.0333</i> | | <i>45.3</i> | <i>40-150</i> | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0170</i> | | <i>"</i> | <i>0.0333</i> | | <i>50.9</i> | <i>40-150</i> | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ1386 - EPA 5030 Soil MS

Blank (BHJ1386-BLK1)

Prepared & Analyzed: 10/31/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0177 | | " | 0.0333 | | 53.0 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0234 | | " | 0.0333 | | 70.3 | 40-150 | | | |

LCS (BHJ1386-BS1)

Prepared & Analyzed: 10/31/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0314 | 0.00500 | mg/kg | 0.0333 | | 94.1 | 31-137 | | | |
| Anthracene | 0.0313 | 0.00500 | " | 0.0333 | | 93.9 | 30-120 | | | |
| Benzo (a) anthracene | 0.0297 | 0.00500 | " | 0.0333 | | 89.0 | 30-120 | | | |
| Benzo (a) pyrene | 0.0277 | 0.00500 | " | 0.0333 | | 83.2 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0312 | 0.00500 | " | 0.0333 | | 93.6 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0290 | 0.00500 | " | 0.0333 | | 86.9 | 30-120 | | | |
| Chrysene | 0.0291 | 0.00500 | " | 0.0333 | | 87.2 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0264 | 0.00500 | " | 0.0333 | | 79.2 | 30-120 | | | |
| Fluoranthene | 0.0322 | 0.00500 | " | 0.0333 | | 96.5 | 30-120 | | | |
| Fluorene | 0.0313 | 0.00500 | " | 0.0333 | | 94.0 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0277 | 0.00500 | " | 0.0333 | | 83.2 | 30-120 | | | |
| Pyrene | 0.0279 | 0.00500 | " | 0.0333 | | 83.8 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0278 | 0.00500 | " | 0.0333 | | 83.5 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0245 | 0.00500 | " | 0.0333 | | 73.5 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0224 | | " | 0.0333 | | 67.2 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0333 | | " | 0.0333 | | 99.9 | 40-150 | | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ1386 - EPA 5030 Soil MS

| Matrix Spike (BHJ1386-MS1) | Source: 2410547-21 | | | Prepared: 10/31/24 Analyzed: 11/02/24 | | | | | | |
|---|---------------------------|---------|----------|--|----|------------|---------------|--|--|--|
| Acenaphthene | 0.0287 | 0.00500 | mg/kg | 0.0333 | ND | 86.1 | 31-137 | | | |
| Anthracene | 0.0319 | 0.00500 | " | 0.0333 | ND | 95.8 | 30-120 | | | |
| Benzo (a) anthracene | 0.0324 | 0.00500 | " | 0.0333 | ND | 97.1 | 30-120 | | | |
| Benzo (a) pyrene | 0.0306 | 0.00500 | " | 0.0333 | ND | 91.8 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0329 | 0.00500 | " | 0.0333 | ND | 98.6 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0312 | 0.00500 | " | 0.0333 | ND | 93.7 | 30-120 | | | |
| Chrysene | 0.0294 | 0.00500 | " | 0.0333 | ND | 88.3 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0299 | 0.00500 | " | 0.0333 | ND | 89.8 | 30-120 | | | |
| Fluoranthene | 0.0304 | 0.00500 | " | 0.0333 | ND | 91.3 | 30-120 | | | |
| Fluorene | 0.0313 | 0.00500 | " | 0.0333 | ND | 93.8 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0290 | 0.00500 | " | 0.0333 | ND | 87.1 | 30-120 | | | |
| Pyrene | 0.0310 | 0.00500 | " | 0.0333 | ND | 93.1 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0330 | 0.00500 | " | 0.0333 | ND | 99.1 | 15-130 | | | |
| 2-Methylnaphthalene | 0.0368 | 0.00500 | " | 0.0333 | ND | 110 | 15-130 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0372</i> | | <i>"</i> | <i>0.0333</i> | | <i>112</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0349</i> | | <i>"</i> | <i>0.0333</i> | | <i>105</i> | <i>40-150</i> | | | |

| Matrix Spike Dup (BHJ1386-MSD1) | Source: 2410547-21 | | | Prepared: 10/31/24 Analyzed: 11/02/24 | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|------|----|--|
| Acenaphthene | 0.0256 | 0.00500 | mg/kg | 0.0333 | ND | 76.9 | 31-137 | 11.3 | 30 | |
| Anthracene | 0.0302 | 0.00500 | " | 0.0333 | ND | 90.5 | 30-120 | 5.65 | 30 | |
| Benzo (a) anthracene | 0.0289 | 0.00500 | " | 0.0333 | ND | 86.7 | 30-120 | 11.2 | 30 | |
| Benzo (a) pyrene | 0.0281 | 0.00500 | " | 0.0333 | ND | 84.3 | 30-120 | 8.52 | 30 | |
| Benzo (b) fluoranthene | 0.0282 | 0.00500 | " | 0.0333 | ND | 84.7 | 30-120 | 15.2 | 30 | |
| Benzo (k) fluoranthene | 0.0277 | 0.00500 | " | 0.0333 | ND | 83.1 | 30-120 | 12.0 | 30 | |
| Chrysene | 0.0291 | 0.00500 | " | 0.0333 | ND | 87.2 | 30-120 | 1.28 | 30 | |
| Dibenz (a,h) anthracene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.1 | 30-120 | 12.6 | 30 | |
| Fluoranthene | 0.0290 | 0.00500 | " | 0.0333 | ND | 87.0 | 30-120 | 4.86 | 30 | |
| Fluorene | 0.0253 | 0.00500 | " | 0.0333 | ND | 76.0 | 30-120 | 21.0 | 30 | |
| Indeno (1,2,3-cd) pyrene | 0.0233 | 0.00500 | " | 0.0333 | ND | 69.9 | 30-120 | 21.8 | 30 | |
| Pyrene | 0.0317 | 0.00500 | " | 0.0333 | ND | 95.1 | 35-142 | 2.15 | 30 | |
| 1-Methylnaphthalene | 0.0297 | 0.00500 | " | 0.0333 | ND | 89.1 | 15-130 | 10.7 | 50 | |
| 2-Methylnaphthalene | 0.0328 | 0.00500 | " | 0.0333 | ND | 98.4 | 15-130 | 11.5 | 50 | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0338</i> | | <i>"</i> | <i>0.0333</i> | | <i>102</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0299</i> | | <i>"</i> | <i>0.0333</i> | | <i>89.8</i> | <i>40-150</i> | | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

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

Batch BHK0251 - EPA 3050B

| | | | | | | | | | | |
|--|-------|------|------|--|-------|------|--------|------|----|-------|
| Blank (BHK0251-BLK1) | | | | Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | ND | 2.00 | mg/L | | | | | | | |
| LCS (BHK0251-BS1) | | | | Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 4.88 | 2.00 | mg/L | 5.00 | | 97.5 | 80-120 | | | |
| Duplicate (BHK0251-DUP1) | | | | Source: 2410547-01 Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 0.162 | 2.00 | mg/L | | 0.218 | | | 29.3 | 20 | QR-01 |
| Matrix Spike (BHK0251-MS1) | | | | Source: 2410547-01 Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 5.04 | 2.00 | mg/L | 5.00 | 0.218 | 96.6 | 75-125 | | | |
| Matrix Spike Dup (BHK0251-MSD1) | | | | Source: 2410547-01 Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 5.51 | 2.00 | mg/L | 5.00 | 0.218 | 106 | 75-125 | 8.90 | 25 | |

Batch BHK0253 - EPA 3050B

| | | | | | | | | | | |
|-----------------------------------|-------|------|------|--|------|------|--------|------|----|-------|
| Blank (BHK0253-BLK1) | | | | Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | ND | 2.00 | mg/L | | | | | | | |
| LCS (BHK0253-BS1) | | | | Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 4.88 | 2.00 | mg/L | 5.00 | | 97.7 | 80-120 | | | |
| Duplicate (BHK0253-DUP1) | | | | Source: 2410547-31 Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 0.791 | 2.00 | mg/L | | 1.05 | | | 28.2 | 20 | QR-01 |
| Matrix Spike (BHK0253-MS1) | | | | Source: 2410547-31 Prepared: 11/06/24 Analyzed: 11/07/24 | | | | | | |
| Boron | 5.47 | 2.00 | mg/L | 5.03 | 1.05 | 88.0 | 75-125 | | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

Summit Scientific

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

Batch BHK0253 - EPA 3050B

Matrix Spike Dup (BHK0253-MSD1)

Source: 2410547-31

Prepared: 11/06/24 Analyzed: 11/07/24

| | | | | | | | | | | |
|-------|------|------|------|------|------|------|--------|------|----|--|
| Boron | 5.74 | 2.00 | mg/L | 5.03 | 1.05 | 93.2 | 75-125 | 4.70 | 25 | |
|-------|------|------|------|------|------|------|--------|------|----|--|

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHK0360 - EPA 3050B

Blank (BHK0360-BLK1)

Prepared: 11/07/24 Analyzed: 11/09/24

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

LCS (BHK0360-BS1)

Prepared: 11/07/24 Analyzed: 11/09/24

| | | | | | | |
|----------|------|--------|-----------|------|------|--------|
| Arsenic | 36.7 | 0.200 | mg/kg wet | 38.5 | 95.4 | 80-120 |
| Barium | 37.5 | 0.400 | " | 38.5 | 97.4 | 80-120 |
| Cadmium | 1.84 | 0.200 | " | 1.92 | 95.5 | 80-120 |
| Copper | 41.9 | 0.400 | " | 38.5 | 109 | 80-120 |
| Lead | 17.7 | 0.200 | " | 19.2 | 92.0 | 80-120 |
| Nickel | 41.4 | 0.400 | " | 38.5 | 108 | 80-120 |
| Silver | 1.86 | 0.0200 | " | 1.92 | 96.6 | 80-120 |
| Zinc | 41.1 | 0.400 | " | 38.5 | 107 | 80-120 |
| Selenium | 3.77 | 0.260 | " | 3.85 | 98.1 | 80-120 |

Duplicate (BHK0360-DUP1)

Source: 2410119-04RE1

Prepared: 11/07/24 Analyzed: 11/09/24

| | | | | | | |
|----------|--------|--------|-----------|--------|-------|----|
| Arsenic | 3.28 | 0.200 | mg/kg wet | 3.29 | 0.310 | 20 |
| Barium | 73.7 | 0.400 | " | 72.5 | 1.63 | 20 |
| Cadmium | 0.202 | 0.200 | " | 0.207 | 2.43 | 20 |
| Copper | 4.46 | 0.400 | " | 4.44 | 0.445 | 20 |
| Lead | 6.41 | 0.200 | " | 6.39 | 0.232 | 20 |
| Nickel | 4.93 | 0.400 | " | 4.82 | 2.19 | 20 |
| Silver | 0.0238 | 0.0200 | " | 0.0244 | 2.53 | 20 |
| Zinc | 17.7 | 0.400 | " | 17.5 | 0.936 | 20 |
| Selenium | ND | 0.260 | " | ND | | 20 |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHK0360 - EPA 3050B

Matrix Spike (BHK0360-MS1)

Source: 2410119-04RE1 Prepared: 11/07/24 Analyzed: 11/09/24

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|--|--|-------|
| Arsenic | 39.8 | 0.200 | mg/kg wet | 40.7 | 3.29 | 89.7 | 75-125 | | | |
| Barium | 110 | 0.400 | " | 40.7 | 72.5 | 93.5 | 75-125 | | | |
| Cadmium | 2.17 | 0.200 | " | 2.03 | 0.207 | 96.4 | 75-125 | | | |
| Copper | 28.4 | 0.400 | " | 40.7 | 4.44 | 58.9 | 75-125 | | | QM-05 |
| Lead | 25.1 | 0.200 | " | 20.3 | 6.39 | 92.1 | 75-125 | | | |
| Nickel | 28.8 | 0.400 | " | 40.7 | 4.82 | 59.1 | 75-125 | | | QM-05 |
| Silver | 1.94 | 0.0200 | " | 2.03 | 0.0244 | 94.5 | 75-125 | | | |
| Zinc | 42.8 | 0.400 | " | 40.7 | 17.5 | 62.1 | 75-125 | | | QM-05 |
| Selenium | 3.21 | 0.260 | " | 4.07 | ND | 78.9 | 75-125 | | | |

Matrix Spike Dup (BHK0360-MSD1)

Source: 2410119-04RE1 Prepared: 11/07/24 Analyzed: 11/09/24

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|-------|----|-------|
| Arsenic | 39.3 | 0.200 | mg/kg wet | 39.7 | 3.29 | 90.6 | 75-125 | 1.23 | 25 | |
| Barium | 122 | 0.400 | " | 39.7 | 72.5 | 126 | 75-125 | 10.2 | 25 | QM-05 |
| Cadmium | 2.15 | 0.200 | " | 1.98 | 0.207 | 97.7 | 75-125 | 1.03 | 25 | |
| Copper | 27.6 | 0.400 | " | 39.7 | 4.44 | 58.4 | 75-125 | 2.79 | 25 | QM-05 |
| Lead | 24.9 | 0.200 | " | 19.8 | 6.39 | 93.4 | 75-125 | 0.827 | 25 | |
| Nickel | 28.0 | 0.400 | " | 39.7 | 4.82 | 58.4 | 75-125 | 2.95 | 25 | QM-05 |
| Silver | 1.91 | 0.0200 | " | 1.98 | 0.0244 | 95.1 | 75-125 | 1.70 | 25 | |
| Zinc | 41.8 | 0.400 | " | 39.7 | 17.5 | 61.1 | 75-125 | 2.39 | 25 | QM-05 |
| Selenium | 3.07 | 0.260 | " | 3.97 | ND | 77.2 | 75-125 | 4.52 | 25 | |

Batch BHK0416 - EPA 3050B

Blank (BHK0416-BLK1)

Prepared: 11/08/24 Analyzed: 11/11/24

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

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHK0416 - EPA 3050B

LCS (BHK0416-BS1)

Prepared: 11/08/24 Analyzed: 11/11/24

| | | | | | | | | | |
|----------|------|--------|-----------|------|--|------|--------|--|--|
| Arsenic | 42.8 | 0.200 | mg/kg wet | 41.0 | | 104 | 80-120 | | |
| Barium | 40.8 | 0.400 | " | 41.0 | | 99.5 | 80-120 | | |
| Cadmium | 1.98 | 0.200 | " | 2.05 | | 96.8 | 80-120 | | |
| Copper | 44.8 | 0.400 | " | 41.0 | | 109 | 80-120 | | |
| Lead | 19.7 | 0.200 | " | 20.5 | | 96.2 | 80-120 | | |
| Nickel | 44.7 | 0.400 | " | 41.0 | | 109 | 80-120 | | |
| Silver | 2.01 | 0.0200 | " | 2.05 | | 98.1 | 80-120 | | |
| Zinc | 43.3 | 0.400 | " | 41.0 | | 106 | 80-120 | | |
| Selenium | 4.09 | 0.260 | " | 4.10 | | 99.9 | 80-120 | | |

Duplicate (BHK0416-DUP1)

Source: 2410547-01

Prepared: 11/08/24 Analyzed: 11/11/24

| | | | | | | | | |
|----------|--------|--------|-----------|--|--------|--|------|----|
| Arsenic | 3.03 | 0.200 | mg/kg dry | | 2.78 | | 8.76 | 20 |
| Barium | 83.1 | 0.400 | " | | 72.9 | | 13.1 | 20 |
| Cadmium | 0.206 | 0.200 | " | | 0.189 | | 8.42 | 20 |
| Copper | 5.08 | 0.400 | " | | 4.71 | | 7.57 | 20 |
| Lead | 7.09 | 0.200 | " | | 6.11 | | 14.9 | 20 |
| Nickel | 5.22 | 0.400 | " | | 4.71 | | 10.1 | 20 |
| Silver | 0.0263 | 0.0200 | " | | 0.0233 | | 12.0 | 20 |
| Zinc | 19.0 | 0.400 | " | | 17.4 | | 8.61 | 20 |
| Selenium | ND | 0.260 | " | | ND | | | 20 |

Matrix Spike (BHK0416-MS1)

Source: 2410547-01

Prepared: 11/08/24 Analyzed: 11/11/24

| | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|-------|
| Arsenic | 47.1 | 0.200 | mg/kg dry | 45.8 | 2.78 | 96.9 | 75-125 | |
| Barium | 121 | 0.400 | " | 45.8 | 72.9 | 106 | 75-125 | |
| Cadmium | 2.41 | 0.200 | " | 2.29 | 0.189 | 97.0 | 75-125 | |
| Copper | 34.8 | 0.400 | " | 45.8 | 4.71 | 65.8 | 75-125 | QM-05 |
| Lead | 27.7 | 0.200 | " | 22.9 | 6.11 | 94.3 | 75-125 | |
| Nickel | 35.0 | 0.400 | " | 45.8 | 4.71 | 66.2 | 75-125 | QM-05 |
| Silver | 2.19 | 0.0200 | " | 2.29 | 0.0233 | 94.9 | 75-125 | |
| Zinc | 47.8 | 0.400 | " | 45.8 | 17.4 | 66.5 | 75-125 | QM-05 |
| Selenium | 3.87 | 0.260 | " | 4.58 | ND | 84.6 | 75-125 | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHK0416 - EPA 3050B

| Matrix Spike Dup (BHK0416-MSD1) | Source: 2410547-01 | | | Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | |
|--|---------------------------|--------|-----------|---------------------------------------|--------|------|--------|-------|----|-------|
| Arsenic | 48.1 | 0.200 | mg/kg dry | 46.2 | 2.78 | 98.1 | 75-125 | 1.96 | 25 | |
| Barium | 126 | 0.400 | " | 46.2 | 72.9 | 114 | 75-125 | 3.63 | 25 | |
| Cadmium | 2.46 | 0.200 | " | 2.31 | 0.189 | 98.3 | 75-125 | 2.01 | 25 | |
| Copper | 34.9 | 0.400 | " | 46.2 | 4.71 | 65.3 | 75-125 | 0.109 | 25 | QM-05 |
| Lead | 28.1 | 0.200 | " | 23.1 | 6.11 | 95.2 | 75-125 | 1.39 | 25 | |
| Nickel | 35.4 | 0.400 | " | 46.2 | 4.71 | 66.4 | 75-125 | 1.00 | 25 | QM-05 |
| Silver | 2.23 | 0.0200 | " | 2.31 | 0.0233 | 95.8 | 75-125 | 1.80 | 25 | |
| Zinc | 47.8 | 0.400 | " | 46.2 | 17.4 | 65.8 | 75-125 | 0.140 | 25 | QM-05 |
| Selenium | 3.86 | 0.260 | " | 4.62 | ND | 83.7 | 75-125 | 0.318 | 25 | |

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHK0438 - 3060A Mod

| | | | | | | | | | | | |
|--|------|------|-----------|------|----|-----|--------|-------|--|----|--|
| Blank (BHK0438-BLK1) | | | | | | | | | | | |
| Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg wet | | | | | | | | |
| LCS (BHK0438-BS1) | | | | | | | | | | | |
| Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | 25.9 | 0.30 | mg/kg wet | 25.0 | | 104 | 80-120 | | | | |
| Duplicate (BHK0438-DUP1) | | | | | | | | | | | |
| Source: 2410542-01 Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | | ND | | | | | 20 | |
| Matrix Spike (BHK0438-MS1) | | | | | | | | | | | |
| Source: 2410542-01 Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | 27.6 | 0.30 | mg/kg dry | 26.2 | ND | 106 | 75-125 | | | | |
| Matrix Spike Dup (BHK0438-MSD1) | | | | | | | | | | | |
| Source: 2410542-01 Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | 27.5 | 0.30 | mg/kg dry | 26.2 | ND | 105 | 75-125 | 0.570 | | 20 | |

Batch BHK0439 - 3060A Mod

| | | | | | | | | | | | |
|--|------|------|-----------|------|----|-----|--------|--|--|----|--|
| Blank (BHK0439-BLK1) | | | | | | | | | | | |
| Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg wet | | | | | | | | |
| LCS (BHK0439-BS1) | | | | | | | | | | | |
| Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | 26.0 | 0.30 | mg/kg wet | 25.0 | | 104 | 80-120 | | | | |
| Duplicate (BHK0439-DUP1) | | | | | | | | | | | |
| Source: 2410547-16 Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | | ND | | | | | 20 | |
| Matrix Spike (BHK0439-MS1) | | | | | | | | | | | |
| Source: 2410547-16 Prepared: 11/08/24 Analyzed: 11/11/24 | | | | | | | | | | | |
| Chromium, Hexavalent | 30.6 | 0.30 | mg/kg dry | 29.4 | ND | 104 | 75-125 | | | | |

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

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

Batch BHK0439 - 3060A Mod

Matrix Spike Dup (BHK0439-MSD1)

Source: 2410547-16

Prepared: 11/08/24 Analyzed: 11/11/24

| | | | | | | | | | | |
|----------------------|------|------|-----------|------|----|-----|--------|------|----|--|
| Chromium, Hexavalent | 30.1 | 0.30 | mg/kg dry | 29.4 | ND | 102 | 75-125 | 1.55 | 20 | |
|----------------------|------|------|-----------|------|----|-----|--------|------|----|--|

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

Summit Scientific

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

Batch BHK0195 - General Preparation

Blank (BHK0195-BLK1)

Prepared: 11/05/24 Analyzed: 11/08/24

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

LCS (BHK0195-BS1)

Prepared: 11/05/24 Analyzed: 11/08/24

| | | | | | | | | | | |
|-----------|------|--------|----------|------|------|--------|--|--|--|--|
| Calcium | 5.93 | 0.0500 | mg/L wet | 5.00 | 119 | 70-130 | | | | |
| Magnesium | 4.60 | 0.0500 | " | 5.00 | 91.9 | 70-130 | | | | |
| Sodium | 4.58 | 0.0500 | " | 5.00 | 91.5 | 70-130 | | | | |

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

Summit Scientific

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

Batch BHK0115 - General Preparation

Duplicate (BHK0115-DUP1)

Source: 2410547-01

Prepared & Analyzed: 11/04/24

| | | | | | | | | | | |
|----------|------|--|---|--|------|--|--|------|----|--|
| % Solids | 91.6 | | % | | 89.5 | | | 2.30 | 20 | |
|----------|------|--|---|--|------|--|--|------|----|--|

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

Summit Scientific

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

Batch BHK0196 - General Preparation

Blank (BHK0196-BLK1)

Prepared: 11/05/24 Analyzed: 11/08/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHK0196-BS1)

Prepared: 11/05/24 Analyzed: 11/08/24

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 105 95-105

Duplicate (BHK0196-DUP1)

Source: 2410547-01

Prepared: 11/05/24 Analyzed: 11/08/24

Specific Conductance (EC) 0.371 0.0100 mmhos/cm 0.375 0.991 20

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

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

Summit Scientific

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

Batch BHK0197 - General Preparation

LCS (BHK0197-BS1)

Prepared: 11/05/24 Analyzed: 11/08/24

| | | | | | |
|----|------|----------|------|------|--------|
| pH | 9.00 | pH Units | 9.18 | 98.0 | 95-105 |
|----|------|----------|------|------|--------|

Duplicate (BHK0197-DUP1)

Source: 2410547-01

Prepared: 11/05/24 Analyzed: 11/08/24

| | | | | | |
|----|------|----------|------|------|----|
| pH | 8.05 | pH Units | 8.21 | 1.97 | 20 |
|----|------|----------|------|------|----|

Summit Scientific

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

Project: Noble - Houndskeeper HOI-17 Facility

Project Number: [none]
Project Manager: Daniel Simpson

Reported:
11/12/24 08:37

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- R-05 The reporting limit for this sample has been raised due to the presence of high levels of non-target analytes.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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