

**SITE ASSESSMENT REPORT**  
**KILDOW C 31-7X FACILITY**  
ECMC SPILL TRACKING # 484348  
ECMC REMEDIATION # 26391

Prepared for:



2115 117th Avenue  
Greeley, CO 80631

Prepared by:



6855 W. 119<sup>th</sup> Ave  
Broomfield, CO 80020

October 30, 2023

Mr. Dan Peterson  
Environmental Specialist,  
Chevron Rockies Business Unit  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80631

**Re: Site Assessment Report**  
***Kildow C 31-7X Facility***  
Spill/Release Point ID: 484348  
Remediation #: 26391  
SWNE S31 T4N R64W  
Weld County, Colorado

Dear Mr. Peterson:

Below please find a copy of the above referenced Site Assessment Report (Report) for the Kildow C 31-7X Facility (Site) located in Weld County, Colorado. The text below describes facility decommissioning, assessment, and associated soil sampling conducted by Tasman, Inc. (Tasman), on behalf of Noble Energy, Inc. (Noble) between April 7, and May 26, 2023.

## **Introduction**

This document describes the results of soil sampling activities conducted at the Site to evaluate subsurface impacts. The activities described below were performed in response to the discovery of impacted material below the separator dump line riser during decommissioning activities conducted at the Site on April 7, 2023.

## **Site Background**

The Site is located approximately 8 miles southeast of La Salle in Weld County, Colorado. The Site legal description is the southwest quarter of the northeast quarter of Section 31, Township 4 North, Range 64 West, 6<sup>th</sup> Principal Meridian. The Site is on terrain that slopes gradually to the east at latitude 40.270680° and longitude -104.591057° [North American Datum of 1983(NAD83)] and is located approximately 0.69 miles southeast of the intersection of County Road 49 and County Road 40 (Figure 1).

Tasman was initially retained by Noble on April 7, 2023, to complete soil sampling and documentation during Site decommissioning and abandonment activities at the facility. As reported in the initial Form 19, historical impacts were discovered on April 7, 2023. Pending confirmation from laboratory analytical data, the Form 19 was submitted to the Energy and Carbon Management Commission (ECMC) on April 21, 2023. The ECMC subsequently issued Spill/Release Point ID Number 484348 for this event. The ECMC assigned Remediation Number 26391 for the project.

## Site Decommissioning Activities

On April 7, 2023, Tasman completed decommissioning soil sampling and documentation for the Kildow C 31-7X Facility. Soil samples were collected throughout the Site targeting the following different areas and pieces of production equipment:

| Area of Site                                  | Sampling  | Sample description   |
|---|---|--|
| Aboveground storage tanks (ASTs)              | AST01@0.5', AST02@0.5', and AST03@0.5',           | Surface soil sample below each former tank location.                             |
| Horizontal separators                         | SEP01-DL@3', SEP02-DL@3', and SEP03-DL@3'         | Soil sample beneath each former separator dump line riser.                       |
| Meter houses                                  | MH01@0.5', and MH02@0.5'                          | Surface sample beneath each aboveground run of meter piping.                     |
| Flare Stack                                   | FLARE01@0.5'                                      | Surface sample at former flare stack location                                    |
| Partially buried produced water vaults (PWVs) | SS01@2.5' through SS08@2.5', FS01@7', and FS02@7' | Four sidewall soil samples and one excavation floor sample from each former PWV. |

All soil samples collected were field screened for volatile organic compounds (VOC) using a photoionization detector (PID) and standard headspace sampling techniques. Ten of the 19 soil samples were submitted to Summit Scientific (Summit) in Golden, Colorado for laboratory analysis. The samples were analyzed for ECOMC Table 915-1 organic compounds in soil using United States Environmental Protection Agency (USEPA) Method 8260B and USEPA Method 8270D, total petroleum hydrocarbons (TPH) using USEPA Methods 8260B and 8015D, pH, electrical conductivity (EC), sodium adsorption ratio (SAR) using USEPA saturated paste extraction method, and boron using the hot water-soluble soil extract method. Soil sample SEP02-DL@3' was also submitted to Summit for laboratory analysis of ECOMC Table 915-1 metals in soil using USEPA Method 6020B. Groundwater was not encountered during decommissioning activities at the facility. Decommissioning soil analytical results are summarized on Table 1, illustrated on Figure 2, and the laboratory analytical reports are included in Attachment A.

## Site Assessment Activities

On May 26, 2023, Tasman completed site assessment activities and background sampling to delineate subsurface soil impacts identified during facility decommissioning. Tasman advanced five soil borings (BH01 through BH05) to 15 feet below ground surface (ft bgs), using a hand auger and a Geoprobe via direct push, in the area of and bounding decommissioning soil sample SEP02-DL@3'. Tasman used a hand auger to advance and collect ten background samples from five borehole locations west of the Site. During soil boring operations, soil samples were collected, and field screened for VOCs

using a PID and standard headspace sampling techniques. The following soil samples were collected at depths corresponding to initial observed impacts and the terminal depth of the borings:

Site Assessment Soil Borings

|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| BH01@3'     | BH02@3'     | BH03@3'     | BH04@3'     | BH05@3'     |
| BH01@10'    | BH02@10'    | BH03@10'    | BH04@10'    | BH05@10'    |
| BH01@14-15' | BH02@14-15' | BH03@14-15' | BH04@14-15' | BH05@14-15' |

Background Area

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| BG01@3'  | BG02@3'  | BG03@3'  | BG04@3'  | BG05@3'  |
| BG01@10' | BG02@10' | BG03@10' | BG04@10' | BG05@10' |

All 15 site assessment soil samples, shown above, were submitted to Summit for laboratory analysis of the ECMC Table 915-1 list of organic compounds in soil using USEPA Methods 8260B and 8270D, and TPH using USEPA Methods 8260B and 8015D. Additionally, the 15 site assessment samples and ten background soil samples were submitted for analysis of arsenic in soil using USEPA Method 6020B as well as analysis of pH using USEPA saturated paste extraction method. Site assessment and background soil sample analytical results are summarized in Table 1 and illustrated on Figure 3. Laboratory analytical reports are included in Attachment A and the boring logs are included in Attachment B.

Groundwater was not encountered during the site assessment. At the conclusion of the site assessment, boreholes BH01 through BH05 were backfilled with bentonite.

## Results

Laboratory analytical results from facility decommissioning soil sample SEP02-DL@3' indicate concentrations of 1,2,4-trimethylbenzene (1,2,4-TMB), 1,3,5-trimethylbenzene (1,3,5-TMB), naphthalene, 1-methylnaphthalene (1-M), and 2-methylnaphthalene (2-M) above ECMC Table 915-1 Protection of Groundwater Soil Screening Levels (GSSL). Hydrocarbon compounds were all below laboratory detection limits in the 15 soil samples collected during the site assessment.

Laboratory analytical results from decommissioning soil sample SEP02-DL@3' and from all 15 site assessment soil samples indicate elevated concentrations of arsenic above ECMC Table 915-1 GSSL and/or ECMC Table 915-1 Residential Soil Screening Levels (RSSL). The average background concentration of arsenic with a 1.25 multiplier applied and the average soil boring concentration of arsenic were calculated to be 0.759 milligrams per kilogram (mg/kg) and 0.717 mg/kg, respectively. Since the average background concentration for arsenic was calculated to be higher than the average arsenic concentration in the soil boring samples, arsenic should not be considered a contaminant of concern at the Site.

Laboratory analytical results indicate pH concentrations below the ECMC Table 915-1 Soil Suitability for Reclamation (SSR) standard in four decommissioning soil samples and one site assessment soil sample. Four of the five soil samples were below the ECMC Table 915-1 SSR standard limit. One soil sample, AST01@0.5', had a pH concentration that was not within 0.5 of the lower pH ECMC Table 915-1 SSR standard. However, given the shallow depth of the sample, the soil at that sample

location area will be scraped during facility abandonment activities. As such, pH should not be considered a contaminant of concern at the Site.

Groundwater was not encountered during decommissioning or site assessment activities at the Site. As such, a desktop review of Colorado's Division of Water Resources (DWR) Well Permit Research Mapper was performed to determine the depth to water below ground surface in permitted water wells within a 0.5-mile radius of the Site. For a visual representation of the results of this inquiry refer to Figure 4. Eight permitted water wells were identified within the 0.5-mile radius. According to the permit records, the average static groundwater level in this region is 172 ft bgs. Since groundwater is recorded to be 172 ft bgs in the region of the Site, and since soil impacts at the Site are limited to less than 3 ft bgs, there is no pathway for contaminant migration to the groundwater table. As such, Noble proposes to utilize ECMC Table 915-1 RSSL when evaluating soil sample analytical results. While concentrations of arsenic are still above ECMC Table 915-1 RSSL, the average arsenic concentrations in the soil boring samples are below the established background concentrations at the Site.

## Conclusions

Soil hydrocarbon impacts in exceedance of ECMC Table 915-1 GSSL identified in facility decommissioning soil sample SEP02-DL@3' have been successfully delineated vertically and laterally by site assessment soil borings BH01 through BH05. Based on the successful delineation and lack of a pathway to groundwater identified at the Site, Noble proposes to apply ECMC Table 915-1 RSSL to the Site. The application of ECMC Table 915-1 RSSLs eliminates 1,2,4-TMB, 1,3,5-TMB, naphthalene, 1-M, and 2-M as contaminants of concern. Since arsenic and pH should not be considered contaminants of concern at the Site based on the evaluation provided in the Results section of this report, Noble requests a No Further Action (NFA) designation for the Site from the ECMC and proposes the soil impacts identified during facility decommissioning be left in place.

## Remarks

The discussion and conclusions contained in this report represent the professional opinions of Tasman, Inc. These opinions are based on currently available information and are arrived at in accordance with currently accepted geologic and engineering practices.

Please contact me at (720) 616-8383 or at [jwhritenour@tasman-geo.com](mailto:jwhritenour@tasman-geo.com) if you require additional information.

Sincerely,  
Tasman, Inc.



Jake Whritenour, Program Manager

Attachments:

Table 1 – Soil Analytical Data

Figure 1 – Site Location Map

Figure 2 – Decommissioning Soil Analytical Results Map (04/07/2023)

Figure 3 – Site Assessment Soil Analytical Results Map (05/26/2023)

Figure 4 – Water Well Investigation Location Map

Attachment A – Laboratory Soil Analytical Data Reports

Attachment B – Boring Logs

## **TABLES**

**TABLE 1**  
**SOIL ANALYTICAL DATA**  
**NOBLE ENERGY, INC. - KILDOW C 31-7X FACILITY**

| Soil Sample ID                               | Date     | <sup>1</sup> Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | 1,2,4 - TMB (mg/kg) | 1,3,5 - TMB (mg/kg) | Naphthalene (mg/kg) | TPH-GRO (mg/kg) | TPH-DRO (mg/kg) | TPH-ORO (mg/kg) | Acenaphthene (mg/kg) | Anthracene (mg/kg) | Benz(a) (mg/kg) | Benzo(a) (mg/kg) | Benzo(b) (mg/kg) | Benzo(k) (mg/kg) | Chrysene (mg/kg) | A,H (mg/kg) | Fluoranthene (mg/kg) | Fluorene (mg/kg) | 1,2,3-CD (mg/kg) | Pyrene (mg/kg) | 1-M (mg/kg) | 2-M (mg/kg) |          |       |
|--|----------|------------------------------|-----------------|----------------------|-----------------------|---------------------|---------------------|---------------------|-----------------|-----------------|-----------------|----------------------|--------------------|-----------------|------------------|------------------|------------------|------------------|-------------|----------------------|------------------|------------------|----------------|-------------|-------------|----------|-------|
| Residential SSL <sup>2</sup>                 |          | 1.2                          | 490             | 5.8                  | 58                    | 30                  | 27                  | 2                   | 500             |                 |                 |                      |                    | 360             | 1,800            | 1.1              | 0.11             | 1.1              | 11          | 110                  | 0.11             | 240              | 240            | 1.1         | 180         | 18       | 24    |
| Protection of Groundwater SSL <sup>2,3</sup> |          | 0.0026                       | 0.69            | 0.78                 | 9.9                   | 0.0081              | 0.0087              | 0.0038              | 500             |                 |                 |                      |                    | 0.55            | 6                | 0.011            | 0.24             | 0.3              | 2.9         | 9                    | 0.096            | 8.9              | 0.54           | 0.98        | 1.3         | 0.006    | 0.019 |
| SS04@2.5'                                    | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| FS01@7"                                      | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| SS08@2.5'                                    | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| FS02@7"                                      | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| AST01@0.5'                                   | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| AST02@0.5'                                   | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| AST03@0.5'                                   | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | 0.0153           | 0.0187           | 0.00990          | 0.0166           | <0.00500    | 0.0379               | <0.00500         | 0.00876          | 0.0206         | <0.00500    | <0.00500    | <0.00500 |       |
| SEP01-DL@3'                                  | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| SEP02-DL@3'                                  | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | 0.034                 | 0.0042              | 0.0038              | 0.0044              | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | 0.0224      | 0.0515      |          |       |
| SEP03-DL@3'                                  | 04/07/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH01@3'                                      | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH01@10'                                     | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH01@14-15'                                  | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH02@3'                                      | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH02@10'                                     | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH02@14-15'                                  | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH03@3'                                      | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH03@10'                                     | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH03@14-15'                                  | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH04@3'                                      | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH04@10'                                     | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH04@14-15'                                  | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH05@3'                                      | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH05@10'                                     | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |
| BH05@14-15'                                  | 05/26/23 | <0.0020                      | <0.0050         | <0.0050              | <0.010                | <0.0050             | <0.0050             | <0.0038             | <0.50           | <50             | <50             | <0.00500             | <0.00500           | <0.00500        | <0.00500         | <0.00500         | <0.00500         | <0.00500         | <0.00500    | <0.00500             | <0.00500         | <0.00500         | <0.00500       | <0.00500    | <0.00500    | <0.00500 |       |

| Soil Sample ID               | Date     | pH      | SAR    | EC (mmhos/cm) | Boron (mg/L) |
|------------------------------|----------|---------|--------|---------------|--------------|
| Residential SSL <sup>2</sup> |          | 6 - 8.3 | <6     | <4mmhos/cm    | 2            |
| SS04@2.5'                    | 04/07/23 | 7.43    | 0.0450 | 0.229         | 0.116        |
| FS01@7'                      | 04/07/23 | 7.06    | 0.0651 | 0.132         | 0.0590       |
| SS08@2.5'                    | 04/07/23 | 5.82    | 0.0575 | 0.156         | 0.0530       |
| FS02@7'                      | 04/07/23 | 7.47    | 0.151  | 0.168         | 0.0689       |
| AST01@0.5'                   | 04/07/23 | 4.40    | 0.0384 | 0.0711        | 0.0450       |
| AST02@0.5'                   | 04/07/23 | 8.22    | 0.599  | 0.269         | 0.0668       |
| AST03@0.5'                   | 04/07/23 | 7.50    | 0.0455 | 0.281         | 0.0911       |
| SEPO1-DL@3'                  | 04/07/23 | 5.94    | 0.0663 | 0.120         | 0.0673       |
| SEPO2-DL@3'                  | 04/07/23 | 5.89    | 0.105  | 0.192         | 0.0647       |
| SEPO3-DL@3'                  | 04/07/23 | 6.11    | 0.169  | 0.131         | 0.0664       |
| BH01@3'                      | 05/26/23 | 7.01    | NA     | NA            | NA           |
| BH01@10'                     | 05/26/23 | 6.79    | NA     | NA            | NA           |
| BH01@14-15'                  | 05/26/23 | 7.50    | NA     | NA            | NA           |
| BH02@3'                      | 05/26/23 | 7.07    | NA     | NA            | NA           |
| BH02@10'                     | 05/26/23 | 8.19    | NA     | NA            | NA           |
| BH02@14-15'                  | 05/26/23 | 8.01    | NA     | NA            | NA           |
| BH03@3'                      | 05/26/23 | 5.92    | NA     | NA            | NA           |
| BH03@10'                     | 05/26/23 | 6.17    | NA     | NA            | NA           |
| BH03@14-15'                  | 05/26/23 | 8.07    | NA     | NA            | NA           |
| BH04@3'                      | 05/26/23 | 7.53    | NA     | NA            | NA           |
| BH04@10'                     | 05/26/23 | 7.21    | NA     | NA            | NA           |
| BH04@14-15'                  | 05/26/23 | 7.61    | NA     | NA            | NA           |
| BH05@3'                      | 05/26/23 | 6.28    | NA     | NA            | NA           |
| BH05@10'                     | 05/26/23 | 6.43    | NA     | NA            | NA           |
| BH05@14-15'                  | 05/26/23 | 7.68    | NA     | NA            | NA           |
| BG01@3'                      | 05/26/23 | 7.67    | NA     | NA            | NA           |
| BG01@10'                     | 05/26/23 | 6.68    | NA     | NA            | NA           |
| BG02@3'                      | 05/26/23 | 7.42    | NA     | NA            | NA           |
| BG02@10'                     | 05/26/23 | 6.55    | NA     | NA            | NA           |
| BG03@3'                      | 05/26/23 | 6.35    | NA     | NA            | NA           |
| BG03@10'                     | 05/26/23 | 6.58    | NA     | NA            | NA           |
| BG04@3'                      | 05/26/23 | 7.01    | NA     | NA            | NA           |
| BG04@10'                     | 05/26/23 | 7.05    | NA     | NA            | NA           |
| BG05@3'                      | 05/26/23 | 7.28    | NA     | NA            | NA           |
| BG05@10'                     | 05/26/23 | 7.09    | NA     | NA            | NA           |

[illegible]

Notes:

1. Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.

2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.

3. SSLs are applicable if a pathway for communication with groundwater is present.

**Definitions:**

ECMC = Energy and Carbon Management Commission

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

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

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

Benz(a) = Benzanthrane

TPH-ORO = Total petroleum hydrocarbons - oil range organics

Benzo(b) = Benzofluoranthene

21. *Journal of the American Medical Association*, 273:1225-1226 (1995).

mg/kg - milligrams per kilogram

Benzo(k) = Benzofluoranthene

SAR = Sodium Adsorption Ratio

Benzo(a) = Benzopyrene

EC = Electrical Conductivity

A,H = Dibenzoanthracene

mmhos/cm = Millimhos per centimeter

1,2,3-CD = Indenopyrene

mg/L = Milligrams per liter

1-M = 1-methylnaphthalene

✓ - Analytical result is less than the indicated laboratory reporting limit

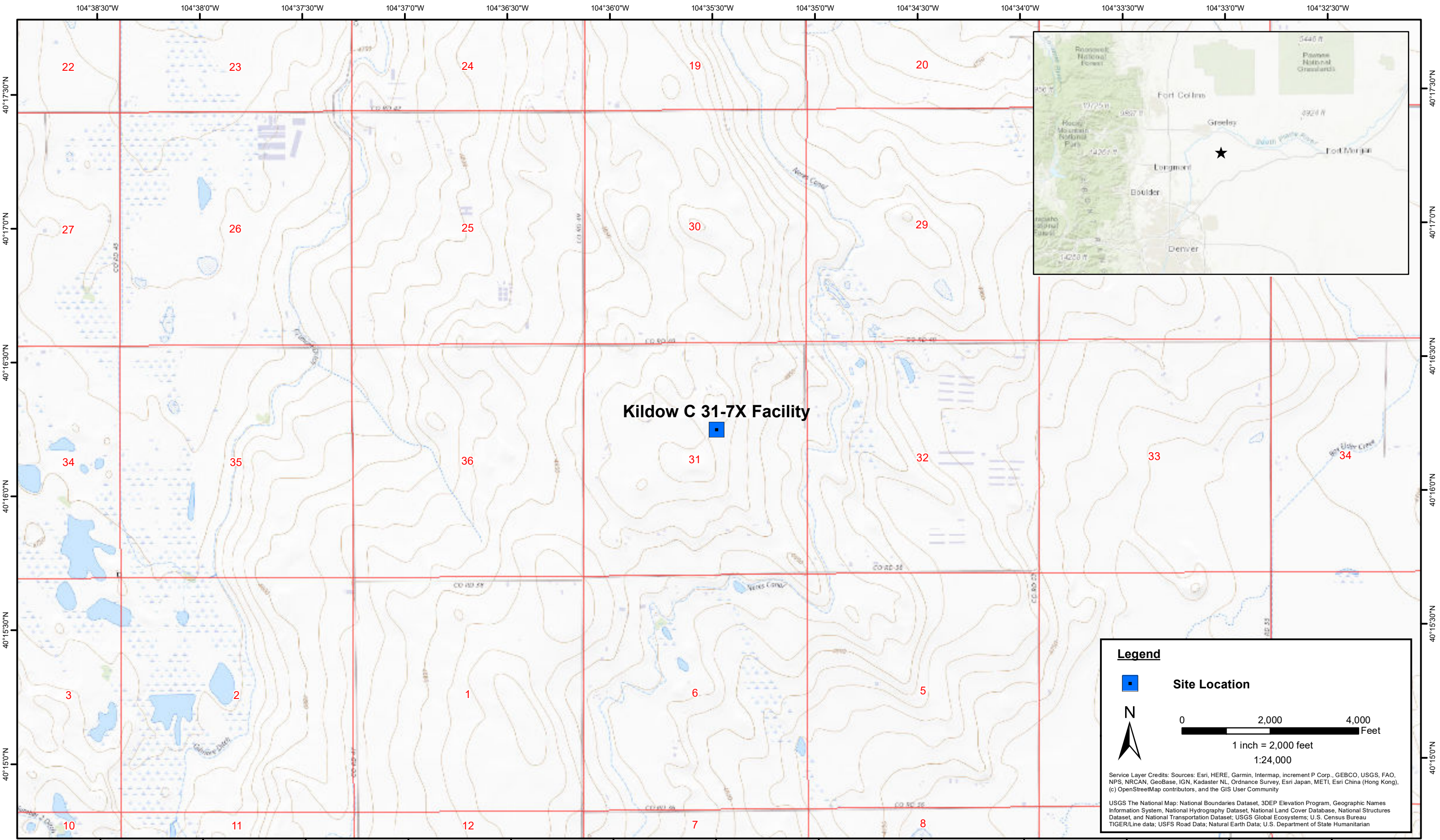
2-M = 2-methylnaphthalene


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

NA = Not analyzed

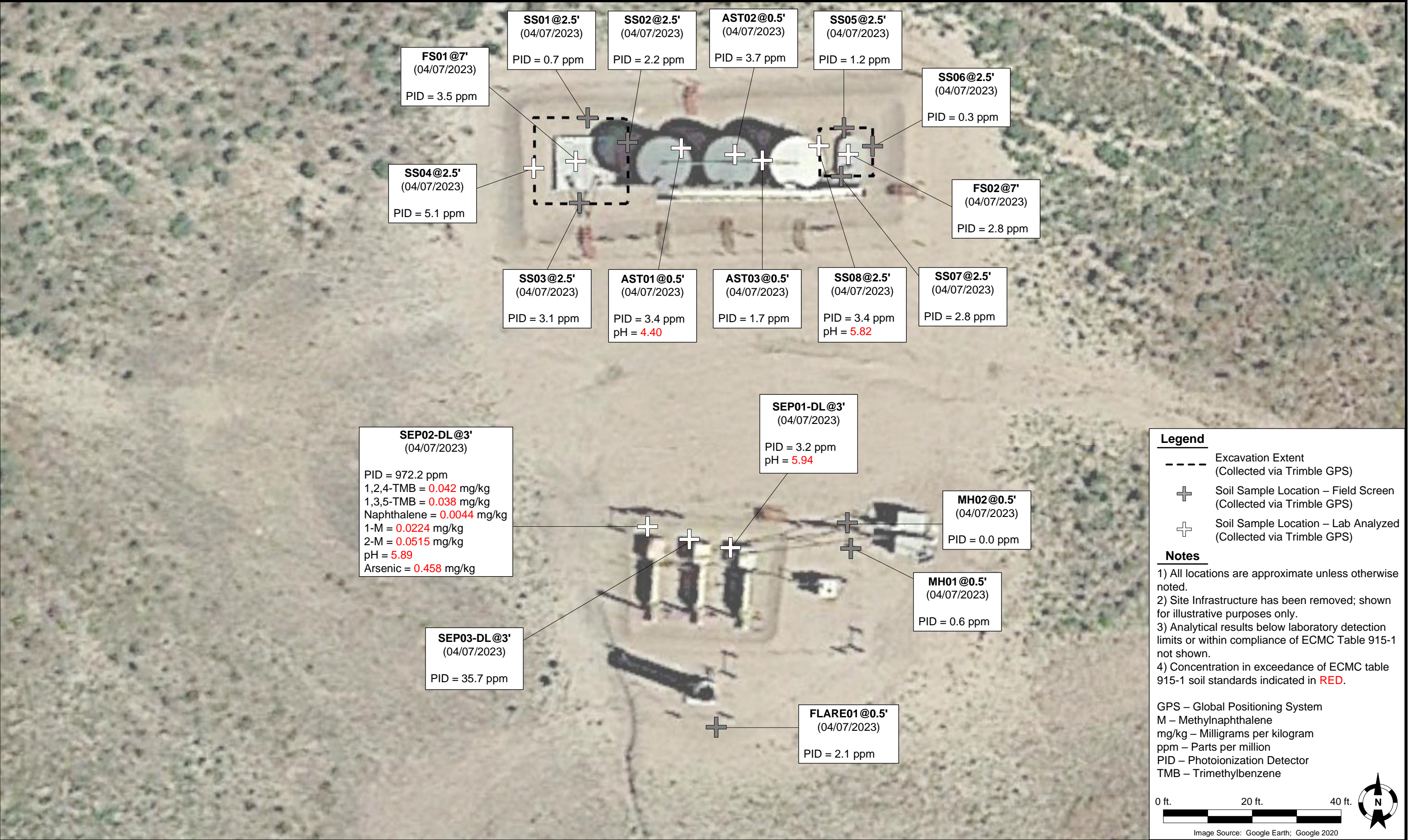


## **FIGURES**

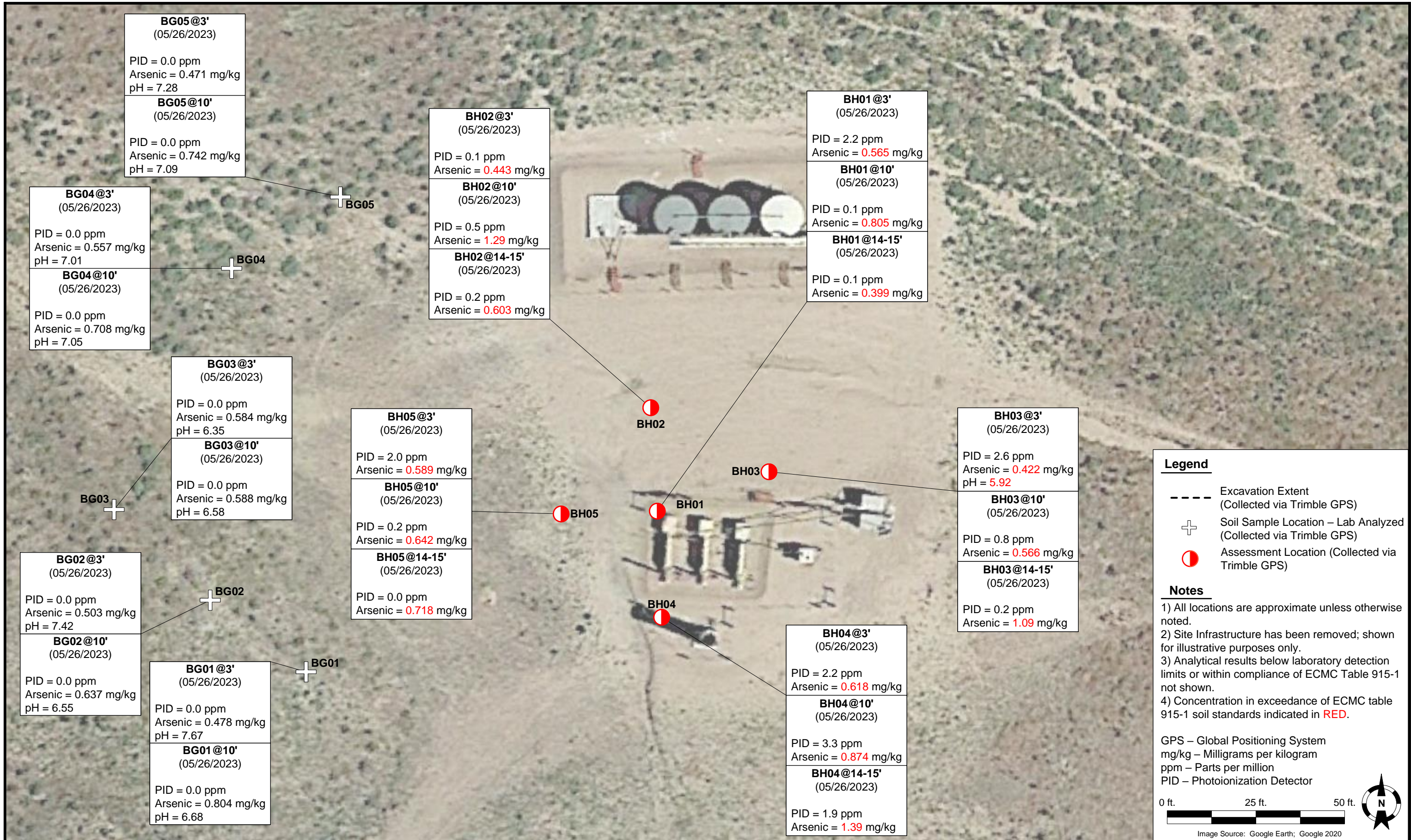


|                               |  |   |                   |             |
|-------------------------------|--|---|-------------------|-------------|
| DATE:<br>April 2023           |  <b>Tasman, Inc.</b><br>6855 W. 119th Ave<br>Broomfield, CO 80020 | <b>Noble Energy, Inc - DJ Basin</b><br><b>Kildow C 31-7X Facility</b><br>SWNE Sec. 31-T4N-R64W<br>Weld County, Colorado | Site Location Map | Figure<br>1 |
| DESIGNED BY:<br>J. Whritenour |  |   |                   |             |
| DRAWN BY:<br>L. Reed          |  |   |                   |             |

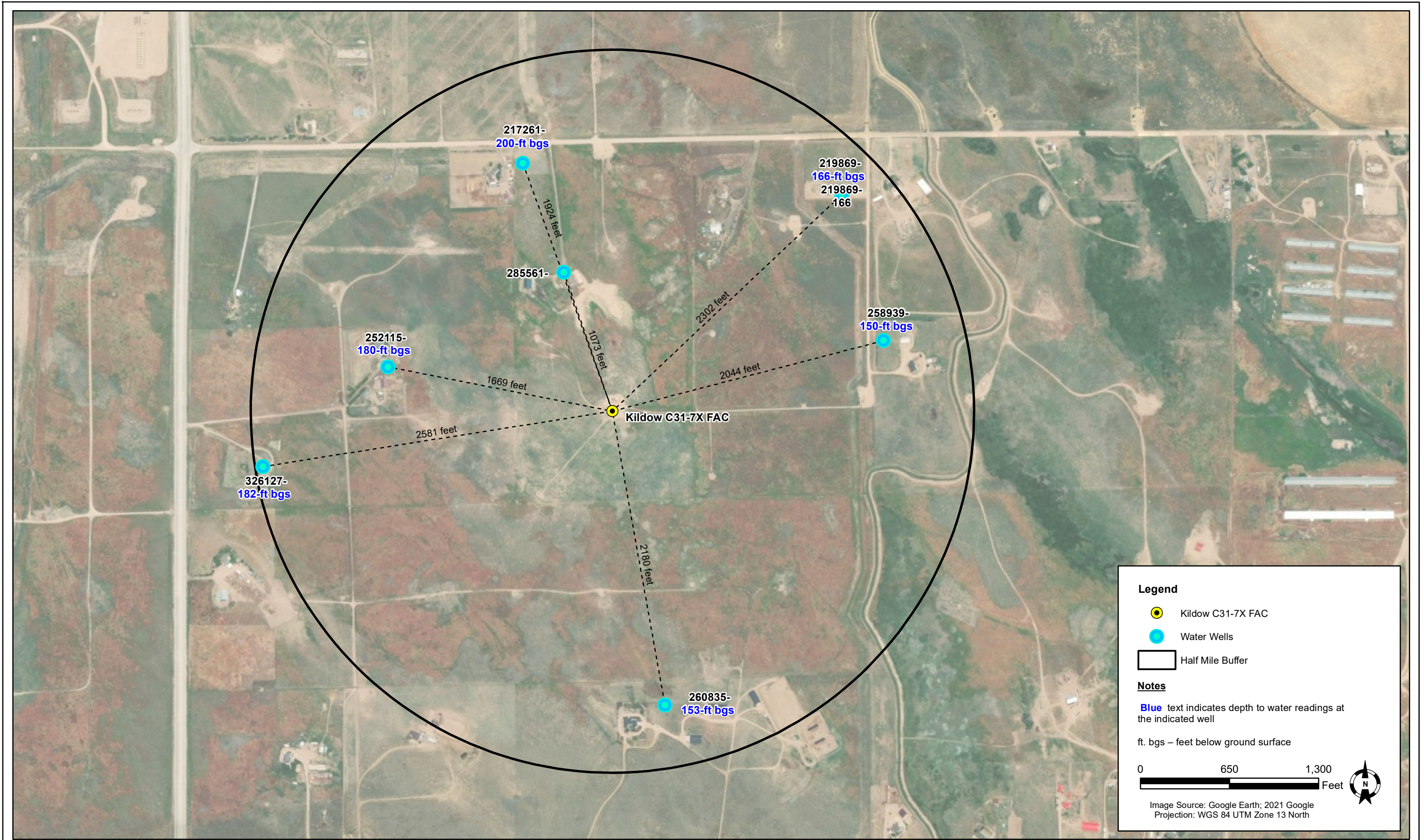












|              |             |
|--------------|-------------|
| DATE:        | August 2023 |
| DESIGNED BY: | JW          |
| DRAWN BY:    | JC          |



**TASMAN**  
Tasman, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

**Noble Energy, Inc. – DJ Basin**  
**Kildow C31-7X FAC**  
SWNE, Section 31, Township 4 North, Range 64 West  
Weld County, Colorado

**WATER WELL INVESTIGATION**  
**LOCATION MAP**

**Figure**  
**4**



**ATTACHMENT A**  
**LABORATORY SOIL ANALYTICAL DATA REPORTS**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 02, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Kildow C 31-7x FAC

Work Order # 2304140

Enclosed are the results of analyses for samples received by Summit Scientific on 04/07/23 17:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely". The signature is fluid and cursive, with the first name "Scott" and last name "Sheely" clearly distinguishable.

Scott Sheely For Paul Shrewsbury

President



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID   | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-------------|---------------|--------|----------------|----------------|
| SS04@2.5'   | 2304140-04    | Soil   | 04/07/23 09:23 | 04/07/23 17:53 |
| FS01@7'     | 2304140-05    | Soil   | 04/07/23 09:24 | 04/07/23 17:53 |
| SS08@2.5'   | 2304140-09    | Soil   | 04/07/23 09:27 | 04/07/23 17:53 |
| FS02@7'     | 2304140-10    | Soil   | 04/07/23 09:28 | 04/07/23 17:53 |
| AST01@0.5'  | 2304140-11    | Soil   | 04/07/23 09:50 | 04/07/23 17:53 |
| AST02@0.5'  | 2304140-12    | Soil   | 04/07/23 09:55 | 04/07/23 17:53 |
| AST03@0.5'  | 2304140-13    | Soil   | 04/07/23 10:00 | 04/07/23 17:53 |
| SEP01-DL@3' | 2304140-14    | Soil   | 04/07/23 10:23 | 04/07/23 17:53 |
| SEP02-DL@3' | 2304140-15    | Soil   | 04/07/23 10:26 | 04/07/23 17:53 |
| SEP03-DL@3' | 2304140-16    | Soil   | 04/07/23 10:45 | 04/07/23 17:53 |

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.*



|                                      |  |   |  |  |  |
|--------------------------------------|--|---|--|--|--|
| Client: Noble/Tasman                 |  | Send Data To:                           |  | Send Invoice To:                                 |  |
| Address: 6855 W. 119th Ave.          |  | Project Manager: Jake Whritenour        |  | Company: <u>Chevron</u>                          |  |
| City/State/Zip: Broomfield/CO/ 80020 |  | E-Mail: Jwhritenour@tasman-geo.com      |  | Project Name/Location: <u>Kildow C 31-7X FAC</u> |  |
| Phone: 602-881-5716                  |  | Project Name: <u>Kildow C 31-7X FAC</u> |  | AFE#:  |  |
| Sampler Name: Dennis Gray            |  | Project Number:                         |  | PO/Billing Codes:                                |  |
|                                      |  |   |  | Contact: <u>Cole Moore</u>                       |  |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      |                |       | Analysis Requested |           |           |           |             |             |      |   | Special Instructions |                                |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-------|--------------------|-----------|-----------|-----------|-------------|-------------|------|---|----------------------|--------------------------------|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other | Metals - 915       | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | HOLD |   |                      | SAR, EC, pH by saturated paste |
| 1  | SS01@ 2.5'         | 4-7-23       | 920          | 2               |              |      | X    |       |        | X    |                |       |                    |           |           |           |             |             |      | X |                      |                                |
| 2  | SS02@ 2.5'         |              | 921          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      | X |                      |                                |
| 3  | SS03@ 2.5'         |              | 922          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      | X |                      |                                |
| 4  | SS04@ 2.5'         |              | 923          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 5  | FS01@ 7'           |              | 924          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 6  | SS05@ 2.5'         |              | 925          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             | X    |   |                      |                                |
| 7  | SS06@ 2.5'         |              | 925          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             | X    |   |                      |                                |
| 8  | SS07@ 2.5'         |              | 926          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             | X    |   |                      |                                |
| 9  | SS08@ 2.5'         |              | 927          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 10 | FS02@ 7'           |              | 928          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 11 | AST01@ 0.5'        |              | 950          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 12 | AST02@ 0.5'        |              | 955          |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 13 | AST03@ 0.5'        |              | 1000         |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 14 | SEP01-DL@ 3'       |              | 1023         |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |
| 15 | SEP02-DL@ 3'       |              | 1026         |                 |              |      |      |       |        |      |                |       |                    | X         | X         | X         | X           | X           |      |   |                      |                                |

|   |                                 |                                     |                               |                   |               |        |
|---|---------------------------------|-------------------------------------|-------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>Dennis Gray</u>     | Date/Time: <u>4-7-23 1615</u>   | Received by: <u>Tasman Lock Box</u> | Date/Time: <u>4-7-23 1615</u> | TAT Business Days | Field DO      | Notes: |
|   |                                 |                                     |                               | Same Day          | Field EC      |        |
| Relinquished by: <u>Tasman Lock Box</u> | Date/Time: <u>4723 1753</u>     | Received by: <u>[Signature]</u>     | Date/Time: <u>4723 1753</u>   | 1 Day             | Field ORP     |        |
|   |                                 |                                     |                               | 2 Days            | Field pH      |        |
| Relinquished by:                        | Date/Time:                      | Received by:                        | Date/Time:                    | 3 Days            | Field Temp.   |        |
|   |                                 |                                     |                               | Standard          | X Field Turb. |        |
| Temperature Upon Receipt: <u>93</u>     | Corrected Temperature: <u>6</u> | IR gun #: <u>1</u>                  | HNO3 lot #:                   |                   |               |        |

|                                      |   |  |
|--------------------------------------|---|--|
| <b>Send Data To:</b>                 |   | <b>Send Invoice To:</b>                          |
| Client: Noble/Tasman                 | Project Manager: Jake Whritenour        | Company: <u>Chevron</u>                          |
| Address: 6855 W. 119th Ave.          | E-Mail: Jwhritenour@tasman-geo.com      | Project Name/Location: <u>Kildow C 31-7X FAC</u> |
| City/State/Zip: Broomfield/CO/ 80020 |   | AFE#:  |
| Phone: 602-881-5716                  | Project Name: <u>Kildow C 31-7X FAC</u> | PO/Billing Codes:                                |
| Sampler Name: Dennis Gray            | Project Number:                         | Contact: <u>Cole Moore</u>                       |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      |                | Analysis Requested |              |           |           |           |             |             |      | Special Instructions           |  |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|--------------------|--------------|-----------|-----------|-----------|-------------|-------------|------|--------------------------------|--|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other              | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | HOLD | SAR, EC, pH by saturated paste |  |
| 1  | SEP03-DL@3'        | 4-7-23       | 1045         | 2               |              |      | X    |       |        | X    |                |                    |              | X         | X         | X         | X           | X           |      |                                |  |
| 2  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 3  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 4  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 5  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 6  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 7  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 8  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 9  |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 10 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 11 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 12 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 13 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 14 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |
| 15 |                    |              |              |                 |              |      |      |       |        |      |                |                    |              |           |           |           |             |             |      |                                |  |

|   |                                 |                                     |                               |                   |               |        |
|---|---------------------------------|-------------------------------------|-------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>Dennis Gray</u>     | Date/Time: <u>4-7-23 1615</u>   | Received by: <u>Tasman Lock Box</u> | Date/Time: <u>4-7-23 1615</u> | TAT Business Days | Field DO      | Notes: |
|   |                                 |                                     |                               | Same Day          | Field EC      |        |
| Relinquished by: <u>Tasman Lock Box</u> | Date/Time: <u>4-7-23 1753</u>   | Received by: <u>[Signature]</u>     | Date/Time: <u>4-7-23 1753</u> | 1 Day             | Field ORP     |        |
|   |                                 |                                     |                               | 2 Days            | Field pH      |        |
| Relinquished by:                        | Date/Time:                      | Received by:                        | Date/Time:                    | 3 Days            | Field Temp.   |        |
|   |                                 |                                     |                               | Standard          | X Field Turb. |        |
| Temperature Upon Receipt: <u>93</u>     | Corrected Temperature: <u>6</u> | IR gun #: <u>1</u>                  | HNO3 lot #:                   |                   |               |        |

S<sub>2</sub>

2/2

## Sample Receipt Checklist

S2 Work Order# 2304140Client: Noble/Trasman Client Project ID: Kildew C31-7xFAeShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐

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

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 93Thermometer # 1

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

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.AS  
Custodian Printed Name4/7/23  
Date/Time



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS04@2.5'**  
**2304140-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:23**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/10/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:23**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 90.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 88.1 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 93.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:23**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:23**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 61.4 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS04@2.5'**  
**2304140-04 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/07/23 09:23**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:23**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 48.7 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 74.1 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:23**

| Analyte      | Result       | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.116</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:23**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS04@2.5'**  
**2304140-04 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 492  | 0.0518 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 105  | 0.0518 | "        | " | "       | "        | "        | "         |
| Sodium    | 4.21 | 0.0518 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:23**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0450 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:23**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 96.5   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:23**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.229  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:23**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.43   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS01@7'**  
**2304140-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:24**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:24**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 88.6 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 88.7 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 92.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:24**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:24**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 48.5 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS01@7'**  
**2304140-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 09:24**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:24**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 52.7 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 64.9 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:24**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0590</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:24**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS01@7'**  
**2304140-05 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 315  | 0.0549 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 77.9 | 0.0549 | "        | " | "       | "        | "        | "         |
| Sodium    | 4.98 | 0.0549 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:24**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0651 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:24**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 91.1   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:24**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.132  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:24**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.06   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS08@2.5'**  
**2304140-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:27**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:27**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 90.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 95.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:27**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:27**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 71.7 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS08@2.5'**  
**2304140-09 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/07/23 09:27**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:27**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 47.0 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 63.2 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:27**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0530</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:27**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SS08@2.5'**  
**2304140-09 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 149  | 0.0528 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 34.9 | 0.0528 | "        | " | "       | "        | "        | "         |
| Sodium    | 3.00 | 0.0528 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:27**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0575 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:27**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 94.6   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:27**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.156  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:27**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 5.82   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS02@7'**  
**2304140-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:28**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:28**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 89.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 93.8 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:28**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:28**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 58.9 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS02@7'**  
**2304140-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 09:28**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:28**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 55.3 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 72.1 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:28**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0689</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:28**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**FS02@7'**  
**2304140-10 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 241  | 0.0542 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 55.5 | 0.0542 | "        | " | "       | "        | "        | "         |
| Sodium    | 10.0 | 0.0542 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:28**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.151  | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:28**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 92.2   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:28**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.168  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:28**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.47   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST01@0.5'**  
**2304140-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:50**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:50**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 90.8 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 88.8 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 92.8 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:50**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:50**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 58.7 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST01@0.5'**  
**2304140-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 09:50**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:50**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 42.7 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 66.5 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:50**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0450</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:50**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST01@0.5'**  
**2304140-11 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 193  | 0.0531 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 28.5 | 0.0531 | "        | " | "       | "        | "        | "         |
| Sodium    | 2.16 | 0.0531 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:50**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0384 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:50**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 94.1   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:50**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.0711 | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:50**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 4.40   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST02@0.5'**  
**2304140-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 09:55**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:55**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 92.5 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 93.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 09:55**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 09:55**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 58.3 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST02@0.5'**  
**2304140-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 09:55**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 09:55**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 49.3 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 78.3 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 09:55**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0668</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 09:55**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST02@0.5'**  
**2304140-12 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 271  | 0.0523 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 37.5 | 0.0523 | "        | " | "       | "        | "        | "         |
| Sodium    | 39.7 | 0.0523 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 09:55**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.599  | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:55**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 95.5   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 09:55**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.269  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 09:55**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.22   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST03@0.5'**  
**2304140-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 10:00**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:00**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 90.1 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 88.7 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 93.4 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 10:00**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:00**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 98.4 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST03@0.5'**  
**2304140-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 10:00**

| Analyte                         | Result         | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|---------------------------------|----------------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene                    | ND             | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene                      | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene            | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (a) pyrene</b>         | <b>0.0153</b>  | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (b) fluoranthene</b>   | <b>0.0187</b>  | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Benzo (k) fluoranthene</b>   | <b>0.00990</b> | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Chrysene</b>                 | <b>0.0166</b>  | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene         | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Fluoranthene</b>             | <b>0.0379</b>  | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                        | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Indeno (1,2,3-cd) pyrene</b> | <b>0.00876</b> | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>Pyrene</b>                   | <b>0.0206</b>  | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene             | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene             | ND             | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 10:00**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 55.3 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 84.3 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 10:00**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0911</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 10:00**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**AST03@0.5'**  
**2304140-13 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 293  | 0.0516 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 68.7 | 0.0516 | "        | " | "       | "        | "        | "         |
| Sodium    | 3.33 | 0.0516 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 10:00**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0455 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:00**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 97.0   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:00**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.281  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 10:00**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.50   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP01-DL@3'**  
**2304140-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 10:23**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:23**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 92.9 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.5 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 95.2 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 10:23**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:23**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 48.1 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP01-DL@3'**  
**2304140-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 10:23**

| Analyte                  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 10:23**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 48.9 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 68.7 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 10:23**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0673</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 10:23**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP01-DL@3'**  
**2304140-14 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 139  | 0.0527 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 29.5 | 0.0527 | "        | " | "       | "        | "        | "         |
| Sodium    | 3.30 | 0.0527 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 10:23**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0663 | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:23**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 94.9   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:23**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.120  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 10:23**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 5.94   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP02-DL@3'**  
**2304140-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 10:26**

| Analyte                       | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-------------------------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| Benzene                       | ND            | 0.0020          |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| <b>Toluene</b>                | <b>0.0070</b> | 0.0050          |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                  | ND            | 0.0050          |     | "     | "        | "       | "        | "        | "         |       |
| <b>Xylenes (total)</b>        | <b>0.034</b>  | 0.010           |     | "     | "        | "       | "        | "        | "         |       |
| <b>1,2,4-Trimethylbenzene</b> | <b>0.042</b>  | 0.0050          |     | "     | "        | "       | "        | "        | "         |       |
| <b>1,3,5-Trimethylbenzene</b> | <b>0.038</b>  | 0.0050          |     | "     | "        | "       | "        | "        | "         |       |
| <b>Naphthalene</b>            | <b>0.0044</b> | 0.0038          |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons   | ND            | 0.50            |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:26**

| Analyte                          | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 |        | 93.2 %          |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.8 %          |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 91.0 %          |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 10:26**

| Analyte       | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND     | 50              |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50              |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:26**

| Analyte                | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl |        | 50.2 %          |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP02-DL@3'**  
**2304140-15 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 10:26**

| Analyte                    | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|----------------------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene               | ND            | 0.00500         |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene                 | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene       | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene           | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene     | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene     | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                   | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene    | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene               | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                   | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene   | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                     | ND            | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>1-Methylnaphthalene</b> | <b>0.0224</b> | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |
| <b>2-Methylnaphthalene</b> | <b>0.0515</b> | 0.00500         |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 10:26**

| Analyte                            | Result | Reporting Limit | MDL | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|-----|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 |        | 58.5 %          |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 85.5 %          |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 10:26**

| Analyte      | Result        | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|---------------|-----------------|-----|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.0647</b> | 0.0100          |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **04/07/23 10:26**

| Analyte | Result | Reporting Limit | MDL | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP02-DL@3'**  
**2304140-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |       |        |           |   |         |          |          |           |
|----------|-------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.458 | 0.217  | mg/kg dry | 1 | BGD0828 | 04/25/23 | 05/01/23 | EPA 6020B |
| Barium   | 37.9  | 0.434  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND    | 0.217  | "         | " | "       | "        | "        | "         |
| Copper   | 1.16  | 0.434  | "         | " | "       | "        | "        | "         |
| Lead     | 3.81  | 0.217  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.28  | 0.434  | "         | " | "       | "        | "        | "         |
| Selenium | ND    | 0.260  | 0.175     | " | "       | "        | "        | "         |
| Silver   | ND    | 0.0217 | "         | " | "       | "        | "        | "         |
| Zinc     | 5.04  | 0.434  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **04/07/23 10:26**

| Analyte              | Result | Reporting Limit | MDL | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            |     | mg/kg dry | 1        | BGD0816 | 04/25/23 | 04/25/23 | EPA 7196A |       |

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

Date Sampled: **04/07/23 10:26**

| Analyte   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 324    | 0.0542          |     | mg/L dry | 1        | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |       |
| Magnesium | 65.3   | 0.0542          |     | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 7.93   | 0.0542          |     | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **04/07/23 10:26**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.105  | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP02-DL@3'**  
**2304140-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 10:26**

| Analyte  | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|-----|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     | MDL |       |          |         |          |          |             |       |
| % Solids | 92.2   |           |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:26**

| Analyte                   | Result | Reporting |     | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------|-----|----------|----------|---------|----------|----------|-----------|-------|
|                           |        | Limit     | MDL |          |          |         |          |          |           |       |
| Specific Conductance (EC) | 0.192  | 0.0100    |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 10:26**

| Analyte | Result | Reporting |     | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|-----|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | MDL |          |          |         |          |          |           |       |
| pH      | 5.89   |           |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP03-DL@3'**  
**2304140-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/07/23 10:45**

| Analyte                     | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | MDL |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    |     | mg/kg | 1        | BGD0280 | 04/10/23 | 04/11/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     |     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    |     | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    |     | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:45**

| Analyte                          | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 93.8 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 94.0 %    |     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/07/23 10:45**

| Analyte       | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | MDL |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        |     | mg/kg | 1        | BGD0282 | 04/10/23 | 04/11/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        |     | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **04/07/23 10:45**

| Analyte                | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl |        | 47.2 %    |     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP03-DL@3'**  
**2304140-16 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/07/23 10:45**

| Analyte                  | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------|-----|-------|----------|---------|----------|----------|---------------|-------|
|                          |        | Limit     | MDL |       |          |         |          |          |               |       |
| Acenaphthene             | ND     | 0.00500   |     | mg/kg | 1        | BGD0411 | 04/13/23 | 04/13/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500   |     | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **04/07/23 10:45**

| Analyte                            | Result | Reporting |     | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
|                                    |        | Limit     | MDL |        |          |       |          |          |        |       |
| Surrogate: 2-Methylnaphthalene-d10 |        | 47.8 %    |     | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        |        | 67.1 %    |     | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **04/07/23 10:45**

| Analyte | Result | Reporting |     | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | MDL |       |          |         |          |          |           |       |
| Boron   | 0.0664 | 0.0100    |     | mg/L  | 1        | BGD0294 | 04/10/23 | 04/17/23 | EPA 6020B |       |

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

Date Sampled: **04/07/23 10:45**

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

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**SEP03-DL@3'**  
**2304140-16 (Soil)**

**Summit Scientific**

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

|           |      |        |          |   |         |          |          |           |
|-----------|------|--------|----------|---|---------|----------|----------|-----------|
| Calcium   | 164  | 0.0534 | mg/L dry | 1 | BGD0473 | 04/15/23 | 04/21/23 | EPA 6020B |
| Magnesium | 31.6 | 0.0534 | "        | " | "       | "        | "        | "         |
| Sodium    | 9.04 | 0.0534 | "        | " | "       | "        | "        | "         |

**Calculated Analysis**

Date Sampled: **04/07/23 10:45**

| Analyte                 | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.169  | 0.00100         |     | units | 1        | BGD0696 | 04/21/23 | 04/21/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:45**

| Analyte  | Result | Reporting Limit | MDL | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 93.6   |                 |     | %     | 1        | BGD0291 | 04/10/23 | 04/11/23 | Calculation |       |

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

Date Sampled: **04/07/23 10:45**

| Analyte                   | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.131  | 0.0100          |     | mmhos/cm | 1        | BGD0475 | 04/16/23 | 04/16/23 | EPA 120.1 |       |

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

Date Sampled: **04/07/23 10:45**

| Analyte | Result | Reporting Limit | MDL | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.11   |                 |     | pH Units | 1        | BGD0474 | 04/16/23 | 04/16/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

### Summit Scientific

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

#### Batch BGD0280 - EPA 5030 Soil MS

##### Blank (BGD0280-BLK1)

Prepared & Analyzed: 04/10/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | ND     | 0.0020 | mg/kg |        |  |      |        |  |  |  |
| Toluene                          | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Ethylbenzene                     | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Xylenes (total)                  | ND     | 0.010  | "     |        |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Naphthalene                      | ND     | 0.0038 | "     |        |  |      |        |  |  |  |
| Gasoline Range Hydrocarbons      | ND     | 0.50   | "     |        |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0367 |        | "     | 0.0400 |  | 91.6 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0352 |        | "     | 0.0400 |  | 88.0 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0371 |        | "     | 0.0400 |  | 92.7 | 50-150 |  |  |  |

##### LCS (BGD0280-BS1)

Prepared & Analyzed: 04/10/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | 0.108  | 0.0020 | mg/kg | 0.125  |  | 86.8 | 70-130 |  |  |  |
| Toluene                          | 0.135  | 0.0050 | "     | 0.125  |  | 108  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.148  | 0.0050 | "     | 0.125  |  | 119  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.295  | 0.010  | "     | 0.250  |  | 118  | 70-130 |  |  |  |
| o-Xylene                         | 0.137  | 0.0050 | "     | 0.125  |  | 110  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.153  | 0.0050 | "     | 0.125  |  | 123  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.153  | 0.0050 | "     | 0.125  |  | 122  | 70-130 |  |  |  |
| Naphthalene                      | 0.151  | 0.0038 | "     | 0.125  |  | 121  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0354 |        | "     | 0.0400 |  | 88.4 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0358 |        | "     | 0.0400 |  | 89.4 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0347 |        | "     | 0.0400 |  | 86.8 | 50-150 |  |  |  |

##### Matrix Spike (BGD0280-MS1)

Source: 2304120-01

Prepared & Analyzed: 04/10/23

|                                  |        |        |       |        |    |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene                          | 0.108  | 0.0020 | mg/kg | 0.125  | ND | 86.7 | 70-130 |  |  |  |
| Toluene                          | 0.136  | 0.0050 | "     | 0.125  | ND | 109  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.152  | 0.0050 | "     | 0.125  | ND | 121  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.300  | 0.010  | "     | 0.250  | ND | 120  | 70-130 |  |  |  |
| o-Xylene                         | 0.140  | 0.0050 | "     | 0.125  | ND | 112  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.158  | 0.0050 | "     | 0.125  | ND | 127  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.156  | 0.0050 | "     | 0.125  | ND | 125  | 70-130 |  |  |  |
| Naphthalene                      | 0.161  | 0.0038 | "     | 0.125  | ND | 129  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0345 |        | "     | 0.0400 |    | 86.2 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0355 |        | "     | 0.0400 |    | 88.8 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0348 |        | "     | 0.0400 |    | 87.0 | 50-150 |  |  |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

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

**Batch BGD0280 - EPA 5030 Soil MS**

| Matrix Spike Dup (BGD0280-MSD1)  | Source: 2304120-01 |        |       | Prepared & Analyzed: 04/10/23 |    |      |        |       |    |  |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|-------|----|--|
| Benzene                          | 0.109              | 0.0020 | mg/kg | 0.125                         | ND | 86.8 | 70-130 | 0.111 | 30 |  |
| Toluene                          | 0.136              | 0.0050 | "     | 0.125                         | ND | 109  | 70-130 | 0.177 | 30 |  |
| Ethylbenzene                     | 0.151              | 0.0050 | "     | 0.125                         | ND | 120  | 70-130 | 0.656 | 30 |  |
| m,p-Xylene                       | 0.298              | 0.010  | "     | 0.250                         | ND | 119  | 70-130 | 0.913 | 30 |  |
| o-Xylene                         | 0.138              | 0.0050 | "     | 0.125                         | ND | 111  | 70-130 | 1.06  | 30 |  |
| 1,2,4-Trimethylbenzene           | 0.156              | 0.0050 | "     | 0.125                         | ND | 125  | 70-130 | 1.24  | 30 |  |
| 1,3,5-Trimethylbenzene           | 0.155              | 0.0050 | "     | 0.125                         | ND | 124  | 70-130 | 0.539 | 30 |  |
| Naphthalene                      | 0.157              | 0.0038 | "     | 0.125                         | ND | 126  | 70-130 | 2.23  | 30 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0374             |        | "     | 0.0400                        |    | 93.5 | 50-150 |       |    |  |
| Surrogate: Toluene-d8            | 0.0356             |        | "     | 0.0400                        |    | 88.9 | 50-150 |       |    |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0350             |        | "     | 0.0400                        |    | 87.5 | 50-150 |       |    |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

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

**Batch BGD0282 - EPA 3550A**

**Blank (BGD0282-BLK1)**

Prepared & Analyzed: 04/10/23

|                        |      |    |       |      |     |        |  |  |  |  |
|------------------------|------|----|-------|------|-----|--------|--|--|--|--|
| C10-C28 (DRO)          | ND   | 50 | mg/kg |      |     |        |  |  |  |  |
| C28-C36 (ORO)          | ND   | 50 | "     |      |     |        |  |  |  |  |
| Surrogate: o-Terphenyl | 13.5 |    | "     | 12.5 | 108 | 30-150 |  |  |  |  |

**LCS (BGD0282-BS1)**

Prepared & Analyzed: 04/10/23

|                        |      |    |       |      |     |        |  |  |  |  |
|------------------------|------|----|-------|------|-----|--------|--|--|--|--|
| C10-C28 (DRO)          | 530  | 50 | mg/kg | 500  | 106 | 70-130 |  |  |  |  |
| Surrogate: o-Terphenyl | 15.1 |    | "     | 12.5 | 121 | 30-150 |  |  |  |  |

**Matrix Spike (BGD0282-MS1)**

Source: 2304119-01

Prepared & Analyzed: 04/10/23

|                        |      |    |       |      |      |        |        |  |  |  |
|------------------------|------|----|-------|------|------|--------|--------|--|--|--|
| C10-C28 (DRO)          | 458  | 50 | mg/kg | 500  | 18.0 | 88.1   | 70-130 |  |  |  |
| Surrogate: o-Terphenyl | 8.75 |    | "     | 12.5 | 70.0 | 30-150 |        |  |  |  |

**Matrix Spike Dup (BGD0282-MSD1)**

Source: 2304119-01

Prepared & Analyzed: 04/10/23

|                        |      |    |       |      |      |        |        |      |    |  |
|------------------------|------|----|-------|------|------|--------|--------|------|----|--|
| C10-C28 (DRO)          | 440  | 50 | mg/kg | 500  | 18.0 | 84.4   | 70-130 | 4.10 | 20 |  |
| Surrogate: o-Terphenyl | 9.13 |    | "     | 12.5 | 73.0 | 30-150 |        |      |    |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

### Summit Scientific

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

#### Batch BGD0411 - EPA 5030 Soil MS

##### Blank (BGD0411-BLK1)

Prepared & Analyzed: 04/13/23

|                          |    |         |       |
|--------------------------|----|---------|-------|
| Acenaphthene             | ND | 0.00500 | mg/kg |
| Anthracene               | ND | 0.00500 | "     |
| Benzo (a) anthracene     | ND | 0.00500 | "     |
| Benzo (a) pyrene         | ND | 0.00500 | "     |
| Benzo (b) fluoranthene   | ND | 0.00500 | "     |
| Benzo (k) fluoranthene   | ND | 0.00500 | "     |
| Chrysene                 | ND | 0.00500 | "     |
| Dibenz (a,h) anthracene  | ND | 0.00500 | "     |
| Fluoranthene             | ND | 0.00500 | "     |
| Fluorene                 | ND | 0.00500 | "     |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | "     |
| Pyrene                   | ND | 0.00500 | "     |
| 1-Methylnaphthalene      | ND | 0.00500 | "     |
| 2-Methylnaphthalene      | ND | 0.00500 | "     |

|                                    |        |   |        |      |        |
|------------------------------------|--------|---|--------|------|--------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0244 | " | 0.0333 | 73.3 | 40-150 |
| Surrogate: Fluoranthene-d10        | 0.0281 | " | 0.0333 | 84.3 | 40-150 |

##### LCS (BGD0411-BS1)

Prepared & Analyzed: 04/13/23

|                          |        |         |       |        |      |        |
|--------------------------|--------|---------|-------|--------|------|--------|
| Acenaphthene             | 0.0269 | 0.00500 | mg/kg | 0.0333 | 80.7 | 31-137 |
| Anthracene               | 0.0263 | 0.00500 | "     | 0.0333 | 78.9 | 30-120 |
| Benzo (a) anthracene     | 0.0270 | 0.00500 | "     | 0.0333 | 80.9 | 30-120 |
| Benzo (a) pyrene         | 0.0245 | 0.00500 | "     | 0.0333 | 73.4 | 30-120 |
| Benzo (b) fluoranthene   | 0.0275 | 0.00500 | "     | 0.0333 | 82.5 | 30-120 |
| Benzo (k) fluoranthene   | 0.0201 | 0.00500 | "     | 0.0333 | 60.4 | 30-120 |
| Chrysene                 | 0.0160 | 0.00500 | "     | 0.0333 | 47.9 | 30-120 |
| Dibenz (a,h) anthracene  | 0.0265 | 0.00500 | "     | 0.0333 | 79.6 | 30-120 |
| Fluoranthene             | 0.0252 | 0.00500 | "     | 0.0333 | 75.5 | 30-120 |
| Fluorene                 | 0.0264 | 0.00500 | "     | 0.0333 | 79.3 | 30-120 |
| Indeno (1,2,3-cd) pyrene | 0.0302 | 0.00500 | "     | 0.0333 | 90.5 | 30-120 |
| Pyrene                   | 0.0241 | 0.00500 | "     | 0.0333 | 72.2 | 35-142 |
| 1-Methylnaphthalene      | 0.0242 | 0.00500 | "     | 0.0333 | 72.7 | 35-142 |
| 2-Methylnaphthalene      | 0.0248 | 0.00500 | "     | 0.0333 | 74.4 | 35-142 |

|                                    |        |   |        |      |        |
|------------------------------------|--------|---|--------|------|--------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0250 | " | 0.0333 | 75.1 | 40-150 |
| Surrogate: Fluoranthene-d10        | 0.0268 | " | 0.0333 | 80.5 | 40-150 |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

### Summit Scientific

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

#### Batch BGD0411 - EPA 5030 Soil MS

##### Matrix Spike (BGD0411-MS1)

Source: 2304140-04

Prepared & Analyzed: 04/13/23

|                                    |        |         |       |        |          |      |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|----------|------|--------|--|--|--|
| Acenaphthene                       | 0.0230 | 0.00500 | mg/kg | 0.0333 | ND       | 68.9 | 31-137 |  |  |  |
| Anthracene                         | 0.0215 | 0.00500 | "     | 0.0333 | ND       | 64.4 | 30-120 |  |  |  |
| Benzo (a) anthracene               | 0.0164 | 0.00500 | "     | 0.0333 | ND       | 49.3 | 30-120 |  |  |  |
| Benzo (a) pyrene                   | 0.0168 | 0.00500 | "     | 0.0333 | ND       | 50.3 | 30-120 |  |  |  |
| Benzo (b) fluoranthene             | 0.0165 | 0.00500 | "     | 0.0333 | ND       | 49.5 | 30-120 |  |  |  |
| Benzo (k) fluoranthene             | 0.0145 | 0.00500 | "     | 0.0333 | ND       | 43.5 | 30-120 |  |  |  |
| Chrysene                           | 0.0161 | 0.00500 | "     | 0.0333 | 0.000876 | 45.8 | 30-120 |  |  |  |
| Dibenz (a,h) anthracene            | 0.0151 | 0.00500 | "     | 0.0333 | ND       | 45.3 | 30-120 |  |  |  |
| Fluoranthene                       | 0.0257 | 0.00500 | "     | 0.0333 | ND       | 77.2 | 30-120 |  |  |  |
| Fluorene                           | 0.0219 | 0.00500 | "     | 0.0333 | ND       | 65.6 | 30-120 |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0173 | 0.00500 | "     | 0.0333 | ND       | 52.0 | 30-120 |  |  |  |
| Pyrene                             | 0.0164 | 0.00500 | "     | 0.0333 | ND       | 49.3 | 35-142 |  |  |  |
| 1-Methylnaphthalene                | 0.0193 | 0.00500 | "     | 0.0333 | ND       | 57.9 | 15-130 |  |  |  |
| 2-Methylnaphthalene                | 0.0201 | 0.00500 | "     | 0.0333 | ND       | 60.4 | 15-130 |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0194 |         | "     | 0.0333 |          | 58.2 | 40-150 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0295 |         | "     | 0.0333 |          | 88.4 | 40-150 |  |  |  |

##### Matrix Spike Dup (BGD0411-MSD1)

Source: 2304140-04

Prepared & Analyzed: 04/13/23

|                                    |        |         |       |        |          |      |        |      |    |       |
|------------------------------------|--------|---------|-------|--------|----------|------|--------|------|----|-------|
| Acenaphthene                       | 0.0159 | 0.00500 | mg/kg | 0.0333 | ND       | 47.8 | 31-137 | 36.1 | 30 | QR-02 |
| Anthracene                         | 0.0170 | 0.00500 | "     | 0.0333 | ND       | 50.9 | 30-120 | 23.5 | 30 |       |
| Benzo (a) anthracene               | 0.0145 | 0.00500 | "     | 0.0333 | ND       | 43.5 | 30-120 | 12.5 | 30 |       |
| Benzo (a) pyrene                   | 0.0149 | 0.00500 | "     | 0.0333 | ND       | 44.8 | 30-120 | 11.5 | 30 |       |
| Benzo (b) fluoranthene             | 0.0145 | 0.00500 | "     | 0.0333 | ND       | 43.5 | 30-120 | 12.9 | 30 |       |
| Benzo (k) fluoranthene             | 0.0138 | 0.00500 | "     | 0.0333 | ND       | 41.5 | 30-120 | 4.78 | 30 |       |
| Chrysene                           | 0.0137 | 0.00500 | "     | 0.0333 | 0.000876 | 38.5 | 30-120 | 16.1 | 30 |       |
| Dibenz (a,h) anthracene            | 0.0137 | 0.00500 | "     | 0.0333 | ND       | 41.2 | 30-120 | 9.62 | 30 |       |
| Fluoranthene                       | 0.0200 | 0.00500 | "     | 0.0333 | ND       | 60.0 | 30-120 | 25.1 | 30 |       |
| Fluorene                           | 0.0164 | 0.00500 | "     | 0.0333 | ND       | 49.2 | 30-120 | 28.6 | 30 |       |
| Indeno (1,2,3-cd) pyrene           | 0.0147 | 0.00500 | "     | 0.0333 | ND       | 44.0 | 30-120 | 16.7 | 30 |       |
| Pyrene                             | 0.0152 | 0.00500 | "     | 0.0333 | ND       | 45.5 | 35-142 | 8.09 | 30 |       |
| 1-Methylnaphthalene                | 0.0176 | 0.00500 | "     | 0.0333 | ND       | 52.9 | 15-130 | 9.13 | 50 |       |
| 2-Methylnaphthalene                | 0.0168 | 0.00500 | "     | 0.0333 | ND       | 50.5 | 15-130 | 17.8 | 50 |       |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0185 |         | "     | 0.0333 |          | 55.4 | 40-150 |      |    |       |
| Surrogate: Fluoranthene-d10        | 0.0240 |         | "     | 0.0333 |          | 71.9 | 40-150 |      |    |       |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

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

**Batch BGD0294 - EPA 3050B**

**Blank (BGD0294-BLK1)**

Prepared: 04/10/23 Analyzed: 04/17/23

Boron ND 0.0100 mg/L

**LCS (BGD0294-BS1)**

Prepared: 04/10/23 Analyzed: 04/17/23

Boron 5.69 0.0100 mg/L 5.00 114 80-120

**Duplicate (BGD0294-DUP1)**

**Source: 2304139-01**

Prepared: 04/10/23 Analyzed: 04/17/23

Boron 0.149 0.0100 mg/L 0.158 6.46 20

**Matrix Spike (BGD0294-MS1)**

**Source: 2304139-01**

Prepared: 04/10/23 Analyzed: 04/17/23

Boron 5.69 0.0100 mg/L 5.00 0.158 111 75-125

**Matrix Spike Dup (BGD0294-MSD1)**

**Source: 2304139-01**

Prepared: 04/10/23 Analyzed: 04/17/23

Boron 5.79 0.0100 mg/L 5.00 0.158 113 75-125 1.73 25

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BGD0828 - EPA 3050B**

**Blank (BGD0828-BLK1)**

Prepared: 04/25/23 Analyzed: 05/01/23

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

**LCS (BGD0828-BS1)**

Prepared: 04/25/23 Analyzed: 05/01/23

|          |      |        |           |      |      |        |
|----------|------|--------|-----------|------|------|--------|
| Arsenic  | 36.9 | 0.200  | mg/kg wet | 40.0 | 92.4 | 80-120 |
| Barium   | 41.8 | 0.400  | "         | 40.0 | 105  | 80-120 |
| Cadmium  | 2.03 | 0.200  | "         | 2.00 | 102  | 80-120 |
| Copper   | 38.0 | 0.400  | "         | 40.0 | 94.9 | 80-120 |
| Lead     | 21.1 | 0.200  | "         | 20.0 | 106  | 80-120 |
| Nickel   | 36.6 | 0.400  | "         | 40.0 | 91.5 | 80-120 |
| Selenium | 4.81 | 0.260  | "         | 4.00 | 120  | 80-120 |
| Silver   | 2.28 | 0.0200 | "         | 2.00 | 114  | 80-120 |
| Zinc     | 36.0 | 0.400  | "         | 40.0 | 90.0 | 80-120 |

**Duplicate (BGD0828-DUP1)**

Source: 2303710-34

Prepared: 04/25/23 Analyzed: 05/01/23

|          |        |        |           |        |       |    |       |
|----------|--------|--------|-----------|--------|-------|----|-------|
| Arsenic  | 3.61   | 0.237  | mg/kg dry | 3.61   | 0.144 | 20 | QR-01 |
| Barium   | 39.3   | 0.474  | "         | 46.8   | 17.5  | 20 |       |
| Cadmium  | 0.0631 | 0.237  | "         | 0.0498 | 23.5  | 20 |       |
| Copper   | 5.43   | 0.474  | "         | 5.42   | 0.297 | 20 |       |
| Lead     | 14.0   | 0.237  | "         | 16.4   | 15.7  | 20 |       |
| Nickel   | 4.33   | 0.474  | "         | 4.39   | 1.51  | 20 | QR-01 |
| Selenium | 0.265  | 0.260  | "         | 0.256  | 3.46  | 20 |       |
| Silver   | 0.0370 | 0.0237 | "         | 0.0266 | 32.8  | 20 |       |
| Zinc     | 19.4   | 0.474  | "         | 19.9   | 2.53  | 20 |       |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BGD0828 - EPA 3050B**

| Matrix Spike (BGD0828-MS1) |      | Source: 2303710-34 |           |      | Prepared: 04/25/23 Analyzed: 05/01/23 |      |        |  |  |       |
|----------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|--|--|-------|
| Arsenic                    | 18.3 | 0.237              | mg/kg dry | 47.4 | 3.61                                  | 31.0 | 75-125 |  |  | QM-07 |
| Barium                     | 78.2 | 0.474              | "         | 47.4 | 46.8                                  | 66.1 | 75-125 |  |  | QM-07 |
| Cadmium                    | 2.64 | 0.237              | "         | 2.37 | 0.0498                                | 109  | 75-125 |  |  |       |
| Copper                     | 20.1 | 0.474              | "         | 47.4 | 5.42                                  | 31.0 | 75-125 |  |  | QM-07 |
| Lead                       | 39.9 | 0.237              | "         | 23.7 | 16.4                                  | 98.9 | 75-125 |  |  |       |
| Nickel                     | 20.1 | 0.474              | "         | 47.4 | 4.39                                  | 33.1 | 75-125 |  |  | QM-07 |
| Selenium                   | 4.96 | 0.260              | "         | 4.74 | 0.256                                 | 99.1 | 75-125 |  |  |       |
| Silver                     | 3.00 | 0.0237             | "         | 2.37 | 0.0266                                | 125  | 75-125 |  |  |       |
| Zinc                       | 33.5 | 0.474              | "         | 47.4 | 19.9                                  | 28.7 | 75-125 |  |  | QM-07 |

| Matrix Spike Dup (BGD0828-MSD1) |      | Source: 2303710-34 |           |      | Prepared: 04/25/23 Analyzed: 05/01/23 |      |        |        |    |       |
|---------------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|--------|----|-------|
| Arsenic                         | 18.8 | 0.237              | mg/kg dry | 47.4 | 3.61                                  | 32.1 | 75-125 | 2.60   | 25 | QM-07 |
| Barium                          | 80.3 | 0.474              | "         | 47.4 | 46.8                                  | 70.5 | 75-125 | 2.65   | 25 | QM-07 |
| Cadmium                         | 2.76 | 0.237              | "         | 2.37 | 0.0498                                | 114  | 75-125 | 4.29   | 25 |       |
| Copper                          | 20.2 | 0.474              | "         | 47.4 | 5.42                                  | 31.2 | 75-125 | 0.658  | 25 | QM-07 |
| Lead                            | 39.8 | 0.237              | "         | 23.7 | 16.4                                  | 98.8 | 75-125 | 0.0274 | 25 |       |
| Nickel                          | 20.2 | 0.474              | "         | 47.4 | 4.39                                  | 33.4 | 75-125 | 0.763  | 25 | QM-07 |
| Selenium                        | 3.02 | 0.260              | "         | 4.74 | 0.256                                 | 58.2 | 75-125 | 48.7   | 25 | QM-07 |
| Silver                          | 2.95 | 0.0237             | "         | 2.37 | 0.0266                                | 123  | 75-125 | 1.58   | 25 |       |
| Zinc                            | 33.6 | 0.474              | "         | 47.4 | 19.9                                  | 28.8 | 75-125 | 0.102  | 25 | QM-07 |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BGD0816 - 3060A Mod**

**Blank (BGD0816-BLK1)**

Prepared & Analyzed: 04/25/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGD0816-BS1)**

Prepared & Analyzed: 04/25/23

Chromium, Hexavalent 20.8 0.30 mg/kg wet 25.0 83.0 80-120

**Duplicate (BGD0816-DUP1)**

**Source: 2304514-01**

Prepared & Analyzed: 04/25/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGD0816-MS1)**

**Source: 2304514-01**

Prepared & Analyzed: 04/25/23

Chromium, Hexavalent 20.8 0.30 mg/kg dry 25.9 ND 80.4 75-125

**Matrix Spike Dup (BGD0816-MSD1)**

**Source: 2304514-01**

Prepared & Analyzed: 04/25/23

Chromium, Hexavalent 25.1 0.30 mg/kg dry 25.9 ND 97.0 75-125 18.7 20

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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

05/02/23 10:50

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

### Summit Scientific

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

#### Batch BGD0473 - General Preparation

##### Blank (BGD0473-BLK1)

Prepared: 04/15/23 Analyzed: 04/21/23

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

##### LCS (BGD0473-BS1)

Prepared: 04/15/23 Analyzed: 04/21/23

|           |      |        |          |      |      |        |
|-----------|------|--------|----------|------|------|--------|
| Calcium   | 4.89 | 0.0500 | mg/L wet | 5.00 | 97.9 | 70-130 |
| Magnesium | 5.10 | 0.0500 | "        | 5.00 | 102  | 70-130 |
| Sodium    | 5.04 | 0.0500 | "        | 5.00 | 101  | 70-130 |

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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

05/02/23 10:50

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

**Summit Scientific**

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

**Batch BGD0291 - General Preparation**

| Duplicate (BGD0291-DUP1) |      | Source: 2304120-01 |   | Prepared: 04/10/23 |      | Analyzed: 04/11/23 |         |
|--------------------------|------|--------------------|---|--------------------|------|--------------------|---------|
| % Solids                 | 90.9 |                    | % |                    | 92.0 |                    | 1.21 20 |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

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

**Batch BGD0475 - General Preparation**

**Blank (BGD0475-BLK1)**

Prepared & Analyzed: 04/16/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGD0475-BS1)**

Prepared & Analyzed: 04/16/23

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BGD0475-DUP1)**

**Source: 2304139-01**

Prepared & Analyzed: 04/16/23

Specific Conductance (EC) 0.374 0.0100 mmhos/cm 0.374 0.0267 20

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

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

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

**Batch BGD0474 - General Preparation**

**LCS (BGD0474-BS1)**

Prepared & Analyzed: 04/16/23

|    |      |          |      |      |        |
|----|------|----------|------|------|--------|
| pH | 9.01 | pH Units | 9.18 | 98.1 | 95-105 |
|----|------|----------|------|------|--------|

**Duplicate (BGD0474-DUP1)**

Source: 2304139-01

Prepared & Analyzed: 04/16/23

|    |      |          |      |       |    |
|----|------|----------|------|-------|----|
| pH | 7.66 | pH Units | 7.60 | 0.786 | 20 |
|----|------|----------|------|-------|----|

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
05/02/23 10:50

### Notes and Definitions

|       |   |
|-------|---|
| QR-02 | The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data. |
| QR-01 | Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.                                     |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.   |
| 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   |



# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 06, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Kildow C 31-7x FAC

Work Order #2305637

Enclosed are the results of analyses for samples received by Summit Scientific on 05/26/23 17:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacob Wood For Paul Shrewsbury

President



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID   | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-------------|---------------|--------|----------------|----------------|
| BH01@3'     | 2305637-01    | Soil   | 05/26/23 09:55 | 05/26/23 17:56 |
| BH01@10'    | 2305637-02    | Soil   | 05/26/23 11:25 | 05/26/23 17:56 |
| BH01@14-15' | 2305637-03    | Soil   | 05/26/23 11:30 | 05/26/23 17:56 |
| BH02@3'     | 2305637-04    | Soil   | 05/26/23 09:10 | 05/26/23 17:56 |
| BH02@10'    | 2305637-05    | Soil   | 05/26/23 09:35 | 05/26/23 17:56 |
| BH02@14-15' | 2305637-06    | Soil   | 05/26/23 09:40 | 05/26/23 17:56 |
| BH03@3'     | 2305637-07    | Soil   | 05/26/23 09:50 | 05/26/23 17:56 |
| BH03@10'    | 2305637-08    | Soil   | 05/26/23 10:10 | 05/26/23 17:56 |
| BH03@14-15' | 2305637-09    | Soil   | 05/26/23 10:15 | 05/26/23 17:56 |
| BH04@3'     | 2305637-10    | Soil   | 05/26/23 10:00 | 05/26/23 17:56 |
| BH04@10'    | 2305637-11    | Soil   | 05/26/23 10:30 | 05/26/23 17:56 |
| BH04@14-15' | 2305637-12    | Soil   | 05/26/23 10:40 | 05/26/23 17:56 |
| BH05@3'     | 2305637-13    | Soil   | 05/26/23 10:05 | 05/26/23 17:56 |
| BH05@10'    | 2305637-14    | Soil   | 05/26/23 12:00 | 05/26/23 17:56 |
| BH05@14-15' | 2305637-15    | Soil   | 05/26/23 12:10 | 05/26/23 17:56 |
| BG01@3'     | 2305637-16    | Soil   | 05/26/23 12:30 | 05/26/23 17:56 |
| BG01@10'    | 2305637-17    | Soil   | 05/26/23 12:31 | 05/26/23 17:56 |
| BG02@3'     | 2305637-18    | Soil   | 05/26/23 12:35 | 05/26/23 17:56 |
| BG02@10'    | 2305637-19    | Soil   | 05/26/23 12:36 | 05/26/23 17:56 |
| BG03@3'     | 2305637-20    | Soil   | 05/26/23 12:40 | 05/26/23 17:56 |
| BG03@10'    | 2305637-21    | Soil   | 05/26/23 12:41 | 05/26/23 17:56 |
| BG04@3'     | 2305637-22    | Soil   | 05/26/23 12:45 | 05/26/23 17:56 |
| BG04@10'    | 2305637-23    | Soil   | 05/26/23 12:46 | 05/26/23 17:56 |
| BG05@3'     | 2305637-24    | Soil   | 05/26/23 12:50 | 05/26/23 17:56 |
| BG05@10'    | 2305637-25    | Soil   | 05/26/23 12:51 | 05/26/23 17:56 |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

# SUMMIT SCIENTIFIC

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

|           |             |
|-----------|-------------|
| Lab ID    | Page 1 of 2 |
| 2305637.1 |             |

|                                      |  |                                    |  |                                      |  |
|--------------------------------------|--|------------------------------------|--|--------------------------------------|--|
| Client: Noble/Tasman                 |  | Send Data To:                      |  | Send Invoice To:                     |  |
| Address: 6855 W. 119th Ave.          |  | Project Manager: Jake Whritenour   |  | Company: Chevron                     |  |
| City/State/Zip: Broomfield/CO/ 80020 |  | E-Mail: Jwhritenour@tasman-geo.com |  | Project Name/Location: Kildow C31-7x |  |
| Phone: 602-881-5716                  |  | Project Name: Kildow C31-7x FAL    |  | AFE#:                                |  |
| Sampler Name: Dennis Gray            |  | Project Number:                    |  | PO/Billing Codes:                    |  |
|                                      |  |                                    |  | Contact: Dan Peterson                |  |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      |                |       | Analysis Requested |           |           |           |             |             |      |             | Special Instructions           |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-------|--------------------|-----------|-----------|-----------|-------------|-------------|------|-------------|--------------------------------|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other | Metals - 915       | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | HOLD | pH, Arsenic | SAR, EC, pH by saturated paste |
| 1  | BH01@3'            | 5-26-23      | 955          | 2               |              |      | X    |       |        | X    |                |       |                    | X         | X         | X         |             |             |      | X           |                                |
| 2  | BH01@10'           |              | 1125         |                 |              |      | X    |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 3  | BH01@14-15'        |              | 1130         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 4  | BH02@3'            |              | 910          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 5  | BH02@10'           |              | 935          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 6  | BH02@14-15'        |              | 940          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 7  | BH03@3'            |              | 950          |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 8  | BH03@10'           |              | 1010         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 9  | BH03@14-15'        |              | 1015         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 10 | BH04@3'            |              | 1000         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 11 | BH04@10'           |              | 1030         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 12 | BH04@14-15'        |              | 1040         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 13 | BH05@3'            |              | 1005         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 14 | BH05@10'           |              | 1200         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |
| 15 | BH05@14-15'        |              | 1210         |                 |              |      |      |       |        |      |                |       |                    |           |           |           |             |             |      |             |                                |

|                                |              |                              |              |                   |               |        |
|--------------------------------|--------------|------------------------------|--------------|-------------------|---------------|--------|
| Relinquished by:               | Date/Time:   | Received by: Tasman Lock Box | Date/Time:   | TAT Business Days | Field DO      | Notes: |
|                                |              |                              |              | Same Day          | Field EC      |        |
| Relinquished by:               | Date/Time:   | Received by:                 | Date/Time:   | 1 Day             | Field ORP     |        |
| Tasman Lock Box                | 5/26/23 1750 | [Signature]                  | 5/26/23 1750 | 2 Days            | Field pH      |        |
| Relinquished by:               | Date/Time:   | Received by:                 | Date/Time:   | 3 Days            | Field Temp.   |        |
|                                |              |                              |              | Standard          | X Field Turb. |        |
| Temperature Upon Receipt: 11.8 |              | Corrected Temperature: 0     |              | IR gun #: 1       | HNO3 lot #:   |        |

# SUMMIT SCIENTIFIC

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

|           |             |
|-----------|-------------|
| Lab ID    | Page 2 of 2 |
| 2305637.2 |             |

|                                      |  |                                    |                                      |
|--------------------------------------|--|------------------------------------|--------------------------------------|
|                                      |  | Send Data To:                      | Send Invoice To:                     |
| Client: Noble/Tasman                 |  | Project Manager: Jake Whritenour   | Company: Chevron                     |
| Address: 6855 W. 119th Ave.          |  | E-Mail: Jwhritenour@tasman-geo.com | Project Name/Location: Kildow C31-7X |
| City/State/Zip: Broomfield/CO/ 80020 |  |                                    | AFE#:                                |
| Phone: 602-881-5716                  |  | Project Name: Kildow C31-7X FAC    | PO/Billing Codes:                    |
| Sampler Name: Dennis Gray            |  | Project Number:                    | Contact: Dan Peterson                |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      | Analysis Requested |       |              |           |           |           |             |             |      |             | Special Instructions |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|--------------------|-------|--------------|-----------|-----------|-----------|-------------|-------------|------|-------------|----------------------|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister #     | Other | Metals - 915 | VOC - 915 | TPH - 915 | PAH - 915 | SAR, EC, pH | Boron - HWS | HOLD | pH, Arsenic |                      |
| 1  | BG01@3'            | 5-26-27      | 1230         | 1               |              |      | X    |       |        | X    |                    |       |              |           |           |           |             |             |      | X           |                      |
| 2  | BG01@10'           |              | 1231         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 3  | BG02@3'            |              | 1235         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 4  | BG02@10'           |              | 1236         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 5  | BG03@3'            |              | 1240         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 6  | BG03@10'           |              | 1241         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 7  | BG04@3'            |              | 1245         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 8  | BG04@10'           |              | 1246         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 9  | BG05@3'            |              | 1250         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 10 | BG05@10'           |              | 1251         |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 11 |                    |              |              |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 12 |                    |              |              |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 13 |                    |              |              |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 14 |                    |              |              |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |
| 15 |                    |              |              |                 |              |      |      |       |        |      |                    |       |              |           |           |           |             |             |      |             |                      |

|                                |                 |                              |                 |                   |               |        |
|--------------------------------|-----------------|------------------------------|-----------------|-------------------|---------------|--------|
| Relinquished by:               | Date/Time:      | Received by: Tasman Lock Box | Date/Time:      | TAT Business Days | Field DO      | Notes: |
|                                |                 |                              |                 | Same Day          | Field EC      |        |
| Relinquished by:               | Date/Time:      | Received by:                 | Date/Time:      | 1 Day             | Field ORP     |        |
| Tasman Lock Box                | 5/26/23<br>1756 | [Signature]                  | 5/26/23<br>1756 | 2 Days            | Field pH      |        |
| Relinquished by:               | Date/Time:      | Received by:                 | Date/Time:      | 3 Days            | Field Temp.   |        |
|                                |                 |                              |                 | Standard          | X Field Turb. |        |
| Temperature Upon Receipt: 11.8 |                 | Corrected Temperature: 0     |                 | IR gun #: 1       | HNO3 lot #:   |        |

S<sub>2</sub>2/2  
Sample Receipt Checklist

S2 Work Order# 2305637

Client: Noble/Asman Client Project ID: Kildow C31-7X FACShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐☐ ☐ ☐ ☐ ☐Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 11.8Thermometer # 1

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

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

AS  
Custodian Printed Name5/26/23  
Date/Time



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@3'**  
**2305637-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 09:55**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:55**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0412 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0444 | 111 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0372 | 93.0 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 09:55**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:55**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.1   | 105 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@3'**  
**2305637-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 09:55**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 09:55**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0201 | 60.3 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0216 | 64.9 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 09:55**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.565</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 09:55**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@3'**  
**2305637-01 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 88.4 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 09:55**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.01   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@10'**  
**2305637-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 11:25**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 11:25**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0403 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0440 | 110 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0378 | 94.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 11:25**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 11:25**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.1   | 105 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BH01@10'**  
**2305637-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 11:25**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 11:25**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0163 | 49.0 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0149 | 44.7 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 11:25**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.805</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 11:25**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@10'**  
**2305637-02 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 86.1 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 11:25**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.79   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@14-15'**  
**2305637-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 11:30**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 11:30**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0419 | 105 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0437 | 109 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0389 | 97.2 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 11:30**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 11:30**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.2   | 106 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@14-15'**  
**2305637-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 11:30**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 11:30**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0175 | 52.5 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0171 | 51.3 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 11:30**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.399</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 11:30**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH01@14-15'**  
**2305637-03 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 80.5 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 11:30**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.50   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@3'**  
**2305637-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 09:10**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:10**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0406 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0448 | 112 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0371 | 92.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 09:10**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:10**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.2   | 105 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@3'**  
**2305637-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 09:10**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 09:10**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0218 | 65.3 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0224 | 67.2 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 09:10**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.443</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 09:10**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@3'**  
**2305637-04 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 92.7 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 09:10**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.07   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@10'**  
**2305637-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 09:35**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:35**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0416 | 104 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0440 | 110 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0370 | 92.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 09:35**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:35**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 12.9   | 103 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BH02@10'**  
**2305637-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 09:35**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 09:35**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0175 | 52.5 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0169 | 50.6 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 09:35**

| Analyte | Result      | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>1.29</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 09:35**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@10'**  
**2305637-05 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 83.1 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 09:35**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.19   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@14-15'**  
**2305637-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 09:40**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:40**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0420 | 105 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0444 | 111 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0396 | 99.0 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 09:40**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:40**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.1   | 104 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@14-15'**  
**2305637-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 09:40**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 09:40**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0184 | 55.2 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0182 | 54.5 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 09:40**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.603</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 09:40**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH02@14-15'**  
**2305637-06 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 79.6 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 09:40**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.01   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@3'**  
**2305637-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 09:50**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:50**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0387 | 96.7 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0437 | 109 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0387 | 96.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 09:50**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 05/31/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 09:50**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.2   | 106 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@3'**  
**2305637-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 09:50**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 09:50**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0173 | 51.9 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0208 | 62.5 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 09:50**

| Analyte        | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| <b>Arsenic</b> | <b>0.422</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 09:50**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@3'**  
**2305637-07 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 92.9 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 09:50**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 5.92   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@10'**  
**2305637-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:10**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:10**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0404 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0435 | 109 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0378 | 94.5 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:10**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:10**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.3   | 107 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BH03@10'**  
**2305637-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:10**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 05/31/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:10**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0176 | 52.7 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0183 | 54.8 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:10**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.566</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 10:10**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@10'**  
**2305637-08 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 90.3 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:10**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.17   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@14-15'**  
**2305637-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:15**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:15**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0412 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0451 | 113 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0373 | 93.2 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:15**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:15**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.2   | 106 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@14-15'**  
**2305637-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:15**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:15**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0139 | 41.6 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0183 | 54.9 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:15**

| Analyte | Result      | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>1.09</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 10:15**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH03@14-15'**  
**2305637-09 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 79.7 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:15**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.07   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@3'**  
**2305637-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:00**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:00**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0414 | 104 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0427 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0387 | 96.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:00**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:00**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.3   | 106 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@3'**  
**2305637-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:00**

| Analyte                  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
|                          |        | Limit     | Units |          |         |          |          |               |       |
| Acenaphthene             | ND     | 0.00500   | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:00**

| Analyte                            | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                    |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0195 | 58.6 %    | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0212 | 63.5 %    | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:00**

| Analyte | Result       | Reporting |           | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|         |              | Limit     | Units     |          |         |          |          |           |       |
| Arsenic | <b>0.618</b> | 0.200     | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 10:00**

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

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@3'**  
**2305637-10 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 89.6 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:00**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.53   |                 | pH Units | 1        | BGF0044 | 06/01/23 | 06/01/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@10'**  
**2305637-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:30**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:30**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0428 | 107 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0459 | 115 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0374 | 93.4 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:30**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:30**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.5   | 108 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@10'**  
**2305637-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:30**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:30**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0179 | 53.6 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0164 | 49.2 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:30**

| Analyte        | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| <b>Arsenic</b> | <b>0.874</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@10'**  
**2305637-11 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 87.2 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:30**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.21   |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@14-15'**  
**2305637-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:40**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:40**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | 99.6 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0452 | 113 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0377 | 94.4 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:40**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:40**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 12.9   | 103 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@14-15'**  
**2305637-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:40**

| Analyte                  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
|                          |        | Limit     | Units |          |         |          |          |               |       |
| Acenaphthene             | ND     | 0.00500   | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500   | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:40**

| Analyte                            | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                    |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0142 | 42.5 %    | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0151 | 45.4 %    | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:40**

| Analyte | Result      | Reporting |           | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|         |             | Limit     | Units     |          |         |          |          |           |       |
| Arsenic | <b>1.39</b> | 0.200     | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 10:40**

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

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH04@14-15'**  
**2305637-12 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 78.6 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:40**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.61   |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@3'**  
**2305637-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 10:05**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:05**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0397 | 99.2 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0449 | 112 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0389 | 97.4 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 10:05**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 10:05**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 12.9   | 104 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BH05@3'**  
**2305637-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 10:05**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 10:05**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0151 | 45.4 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0148 | 44.3 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 10:05**

| Analyte        | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| <b>Arsenic</b> | <b>0.589</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 10:05**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@3'**  
**2305637-13 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 88.4 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 10:05**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.28   |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@10'**  
**2305637-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 12:00**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 12:00**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | 99.6 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0444 | 111 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0376 | 93.9 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 12:00**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 12:00**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BH05@10'**  
**2305637-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 12:00**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 12:00**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0203 | 61.0 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0225 | 67.4 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:00**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.642</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:00**

| 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@10'**  
**2305637-14 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 89.3 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 12:00**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.43   |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@14-15'**  
**2305637-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/26/23 12:10**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGE1084 | 05/31/23 | 06/01/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 12:10**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0416 | 104 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0438 | 109 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0373 | 93.3 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/26/23 12:10**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGE1087 | 05/31/23 | 06/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **05/26/23 12:10**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 13.1   | 105 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@14-15'**  
**2305637-15 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/26/23 12:10**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGE1053 | 05/31/23 | 06/01/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **05/26/23 12:10**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0188 | 56.5 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0206 | 61.8 %          | 40-150 |          | "     | "        | "        | "      |       |

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:10**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.718</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:10**

| 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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BH05@14-15'**  
**2305637-15 (Soil)**

**Summit Scientific**

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

|          |      |   |   |         |          |          |             |
|----------|------|---|---|---------|----------|----------|-------------|
| % Solids | 79.4 | % | 1 | BGF0049 | 06/01/23 | 06/01/23 | Calculation |
|----------|------|---|---|---------|----------|----------|-------------|

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

Date Sampled: **05/26/23 12:10**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.68   |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG01@3'**  
**2305637-16 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:30**

| Analyte | Result       | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.478</b> | 0.200           | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:30**

| Analyte  | Result      | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>95.5</b> |                 | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:30**

| Analyte | Result      | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>7.67</b> |                 | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG01@10'**  
**2305637-17 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:31**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.804</b> | 0.200              | mg/kg dry | 1        | BGF0061 | 06/02/23 | 06/05/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:31**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>88.6</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:31**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>6.68</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG02@3'**  
**2305637-18 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:35**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.503</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:35**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>93.5</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:35**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>7.42</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG02@10'**  
**2305637-19 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:36**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.637</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:36**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>88.9</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:36**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>6.55</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG03@3'**  
**2305637-20 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:40**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.584</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:40**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>92.4</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:40**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>6.35</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG03@10'**  
**2305637-21 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:41**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.588</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:41**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>89.2</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:41**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>6.58</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG04@3'**  
**2305637-22 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:45**

| Analyte | Result | Reporting |  | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|--|-----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     |  |           |          |         |          |          |           |       |
| Arsenic | 0.557  | 0.200     |  | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:45**

| Analyte  | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     |  |       |          |         |          |          |             |       |
| % Solids | 91.6   |           |  | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:45**

| Analyte | Result | Reporting |  | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     |  |          |          |         |          |          |           |       |
| pH      | 7.01   |           |  | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

**BG04@10'**  
**2305637-23 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:46**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.708</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:46**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>92.5</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:46**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>7.05</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG05@3'**  
**2305637-24 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:50**

| Analyte | Result       | Reporting<br>Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | <b>0.471</b> | 0.200              | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:50**

| Analyte  | Result      | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | <b>93.8</b> |                    | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:50**

| Analyte | Result      | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | <b>7.28</b> |                    | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | 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 - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**BG05@10'**  
**2305637-25 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/26/23 12:51**

| Analyte | Result | Reporting |  | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|--|-----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     |  |           |          |         |          |          |           |       |
| Arsenic | 0.742  | 0.200     |  | mg/kg dry | 1        | BGF0118 | 06/05/23 | 06/06/23 | EPA 6020B |       |

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

Date Sampled: **05/26/23 12:51**

| Analyte  | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     |  |       |          |         |          |          |             |       |
| % Solids | 96.0   |           |  | %     | 1        | BGF0049 | 06/01/23 | 06/01/23 | Calculation |       |

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

Date Sampled: **05/26/23 12:51**

| Analyte | Result | Reporting |  | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     |  |          |          |         |          |          |           |       |
| pH      | 7.09   |           |  | pH Units | 1        | BGF0074 | 06/02/23 | 06/02/23 | EPA 9045D |       |





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

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

### Summit Scientific

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

#### Batch BGE1084 - EPA 5030 Soil MS

##### Blank (BGE1084-BLK1)

Prepared & Analyzed: 05/31/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | ND     | 0.0020 | mg/kg |        |  |      |        |  |  |  |
| Toluene                          | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Ethylbenzene                     | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Xylenes (total)                  | ND     | 0.010  | "     |        |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Naphthalene                      | ND     | 0.0038 | "     |        |  |      |        |  |  |  |
| Gasoline Range Hydrocarbons      | ND     | 0.50   | "     |        |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0379 |        | "     | 0.0400 |  | 94.6 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0465 |        | "     | 0.0400 |  | 116  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0374 |        | "     | 0.0400 |  | 93.4 | 50-150 |  |  |  |

##### LCS (BGE1084-BS1)

Prepared & Analyzed: 05/31/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | 0.0823 | 0.0020 | mg/kg | 0.100  |  | 82.3 | 70-130 |  |  |  |
| Toluene                          | 0.112  | 0.0050 | "     | 0.100  |  | 112  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.109  | 0.0050 | "     | 0.100  |  | 109  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.221  | 0.010  | "     | 0.200  |  | 111  | 70-130 |  |  |  |
| o-Xylene                         | 0.106  | 0.0050 | "     | 0.100  |  | 106  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.115  | 0.0050 | "     | 0.100  |  | 115  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.117  | 0.0050 | "     | 0.100  |  | 117  | 70-130 |  |  |  |
| Naphthalene                      | 0.0969 | 0.0038 | "     | 0.100  |  | 96.9 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0365 |        | "     | 0.0400 |  | 91.3 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0444 |        | "     | 0.0400 |  | 111  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0374 |        | "     | 0.0400 |  | 93.4 | 50-150 |  |  |  |

##### Matrix Spike (BGE1084-MS1)

Source: 2305636-01

Prepared & Analyzed: 05/31/23

|                                  |        |        |       |        |    |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene                          | 0.0835 | 0.0020 | mg/kg | 0.100  | ND | 83.5 | 70-130 |  |  |  |
| Toluene                          | 0.110  | 0.0050 | "     | 0.100  | ND | 110  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.110  | 0.0050 | "     | 0.100  | ND | 110  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.222  | 0.010  | "     | 0.200  | ND | 111  | 70-130 |  |  |  |
| o-Xylene                         | 0.107  | 0.0050 | "     | 0.100  | ND | 107  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.111  | 0.0050 | "     | 0.100  | ND | 111  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.113  | 0.0050 | "     | 0.100  | ND | 113  | 70-130 |  |  |  |
| Naphthalene                      | 0.101  | 0.0038 | "     | 0.100  | ND | 101  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0403 |        | "     | 0.0400 |    | 101  | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0444 |        | "     | 0.0400 |    | 111  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0389 |        | "     | 0.0400 |    | 97.4 | 50-150 |  |  |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

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

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

**Batch BGE1084 - EPA 5030 Soil MS**

| Matrix Spike Dup (BGE1084-MSD1)  | Source: 2305636-01 |        |       | Prepared & Analyzed: 05/31/23 |    |      |        |       |    |  |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|-------|----|--|
| Benzene                          | 0.0875             | 0.0020 | mg/kg | 0.100                         | ND | 87.5 | 70-130 | 4.70  | 30 |  |
| Toluene                          | 0.116              | 0.0050 | "     | 0.100                         | ND | 116  | 70-130 | 5.37  | 30 |  |
| Ethylbenzene                     | 0.117              | 0.0050 | "     | 0.100                         | ND | 117  | 70-130 | 6.14  | 30 |  |
| m,p-Xylene                       | 0.238              | 0.010  | "     | 0.200                         | ND | 119  | 70-130 | 7.15  | 30 |  |
| o-Xylene                         | 0.112              | 0.0050 | "     | 0.100                         | ND | 112  | 70-130 | 3.86  | 30 |  |
| 1,2,4-Trimethylbenzene           | 0.114              | 0.0050 | "     | 0.100                         | ND | 114  | 70-130 | 2.75  | 30 |  |
| 1,3,5-Trimethylbenzene           | 0.120              | 0.0050 | "     | 0.100                         | ND | 120  | 70-130 | 6.69  | 30 |  |
| Naphthalene                      | 0.0999             | 0.0038 | "     | 0.100                         | ND | 99.9 | 70-130 | 0.689 | 30 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0391             |        | "     | 0.0400                        |    | 97.6 | 50-150 |       |    |  |
| Surrogate: Toluene-d8            | 0.0442             |        | "     | 0.0400                        |    | 111  | 50-150 |       |    |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0386             |        | "     | 0.0400                        |    | 96.6 | 50-150 |       |    |  |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

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

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

**Batch BGE1087 - EPA 3550A**

**Blank (BGE1087-BLK1)**

Prepared & Analyzed: 05/31/23

|               |    |    |       |
|---------------|----|----|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg |
| C28-C36 (ORO) | ND | 50 | "     |

|                        |      |   |      |     |        |
|------------------------|------|---|------|-----|--------|
| Surrogate: o-Terphenyl | 12.9 | " | 12.5 | 103 | 30-150 |
|------------------------|------|---|------|-----|--------|

**LCS (BGE1087-BS1)**

Prepared & Analyzed: 05/31/23

|                        |      |    |       |     |        |        |
|------------------------|------|----|-------|-----|--------|--------|
| C10-C28 (DRO)          | 630  | 50 | mg/kg | 500 | 126    | 70-130 |
| Surrogate: o-Terphenyl | 13.4 | "  | 12.5  | 107 | 30-150 |        |

**Matrix Spike (BGE1087-MS1)**

Source: 2305636-01

Prepared & Analyzed: 05/31/23

|                        |      |    |       |     |        |     |        |
|------------------------|------|----|-------|-----|--------|-----|--------|
| C10-C28 (DRO)          | 551  | 50 | mg/kg | 500 | ND     | 110 | 70-130 |
| Surrogate: o-Terphenyl | 13.3 | "  | 12.5  | 106 | 30-150 |     |        |

**Matrix Spike Dup (BGE1087-MSD1)**

Source: 2305636-01

Prepared & Analyzed: 05/31/23

|                        |      |    |       |     |        |     |        |      |    |
|------------------------|------|----|-------|-----|--------|-----|--------|------|----|
| C10-C28 (DRO)          | 543  | 50 | mg/kg | 500 | ND     | 109 | 70-130 | 1.42 | 20 |
| Surrogate: o-Terphenyl | 13.3 | "  | 12.5  | 106 | 30-150 |     |        |      |    |



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

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

### Summit Scientific

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

#### Batch BGE1053 - EPA 5030 Soil MS

##### Blank (BGE1053-BLK1)

Prepared & Analyzed: 05/31/23

|                                    |        |         |       |        |  |      |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene                       | ND     | 0.00500 | mg/kg |        |  |      |        |  |  |  |
| Anthracene                         | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (a) anthracene               | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (a) pyrene                   | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (b) fluoranthene             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Benzo (k) fluoranthene             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Chrysene                           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Dibenz (a,h) anthracene            | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Fluoranthene                       | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Fluorene                           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Indeno (1,2,3-cd) pyrene           | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Pyrene                             | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| 1-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| 2-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |        |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0226 |         | "     | 0.0333 |  | 67.8 | 40-150 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0314 |         | "     | 0.0333 |  | 94.3 | 40-150 |  |  |  |

##### LCS (BGE1053-BS1)

Prepared & Analyzed: 05/31/23

|                                    |        |         |       |        |  |      |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene                       | 0.0318 | 0.00500 | mg/kg | 0.0333 |  | 95.3 | 31-137 |  |  |  |
| Anthracene                         | 0.0324 | 0.00500 | "     | 0.0333 |  | 97.3 | 30-120 |  |  |  |
| Benzo (a) anthracene               | 0.0333 | 0.00500 | "     | 0.0333 |  | 99.8 | 30-120 |  |  |  |
| Benzo (a) pyrene                   | 0.0309 | 0.00500 | "     | 0.0333 |  | 92.8 | 30-120 |  |  |  |
| Benzo (b) fluoranthene             | 0.0318 | 0.00500 | "     | 0.0333 |  | 95.3 | 30-120 |  |  |  |
| Benzo (k) fluoranthene             | 0.0328 | 0.00500 | "     | 0.0333 |  | 98.3 | 30-120 |  |  |  |
| Chrysene                           | 0.0338 | 0.00500 | "     | 0.0333 |  | 102  | 30-120 |  |  |  |
| Dibenz (a,h) anthracene            | 0.0314 | 0.00500 | "     | 0.0333 |  | 94.2 | 30-120 |  |  |  |
| Fluoranthene                       | 0.0315 | 0.00500 | "     | 0.0333 |  | 94.4 | 30-120 |  |  |  |
| Fluorene                           | 0.0295 | 0.00500 | "     | 0.0333 |  | 88.5 | 30-120 |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0311 | 0.00500 | "     | 0.0333 |  | 93.2 | 30-120 |  |  |  |
| Pyrene                             | 0.0339 | 0.00500 | "     | 0.0333 |  | 102  | 35-142 |  |  |  |
| 1-Methylnaphthalene                | 0.0164 | 0.00500 | "     | 0.0333 |  | 49.2 | 35-142 |  |  |  |
| 2-Methylnaphthalene                | 0.0321 | 0.00500 | "     | 0.0333 |  | 96.4 | 35-142 |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0308 |         | "     | 0.0333 |  | 92.4 | 40-150 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0330 |         | "     | 0.0333 |  | 98.9 | 40-150 |  |  |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

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

### Summit Scientific

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

#### Batch BGE1053 - EPA 5030 Soil MS

| Matrix Spike (BGE1053-MS1)         |        |         | Source: 2305636-01 |        |    | Prepared & Analyzed: 05/31/23 |        |  |  |  |  |
|------------------------------------|--------|---------|--------------------|--------|----|-------------------------------|--------|--|--|--|--|
| Acenaphthene                       | 0.0148 | 0.00500 | mg/kg              | 0.0333 | ND | 44.3                          | 31-137 |  |  |  |  |
| Anthracene                         | 0.0147 | 0.00500 | "                  | 0.0333 | ND | 44.2                          | 30-120 |  |  |  |  |
| Benzo (a) anthracene               | 0.0136 | 0.00500 | "                  | 0.0333 | ND | 40.9                          | 30-120 |  |  |  |  |
| Benzo (a) pyrene                   | 0.0141 | 0.00500 | "                  | 0.0333 | ND | 42.4                          | 30-120 |  |  |  |  |
| Benzo (b) fluoranthene             | 0.0171 | 0.00500 | "                  | 0.0333 | ND | 51.3                          | 30-120 |  |  |  |  |
| Benzo (k) fluoranthene             | 0.0150 | 0.00500 | "                  | 0.0333 | ND | 44.9                          | 30-120 |  |  |  |  |
| Chrysene                           | 0.0140 | 0.00500 | "                  | 0.0333 | ND | 42.0                          | 30-120 |  |  |  |  |
| Dibenz (a,h) anthracene            | 0.0159 | 0.00500 | "                  | 0.0333 | ND | 47.7                          | 30-120 |  |  |  |  |
| Fluoranthene                       | 0.0152 | 0.00500 | "                  | 0.0333 | ND | 45.6                          | 30-120 |  |  |  |  |
| Fluorene                           | 0.0138 | 0.00500 | "                  | 0.0333 | ND | 41.3                          | 30-120 |  |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0147 | 0.00500 | "                  | 0.0333 | ND | 44.0                          | 30-120 |  |  |  |  |
| Pyrene                             | 0.0158 | 0.00500 | "                  | 0.0333 | ND | 47.4                          | 35-142 |  |  |  |  |
| 1-Methylnaphthalene                | 0.0166 | 0.00500 | "                  | 0.0333 | ND | 49.7                          | 15-130 |  |  |  |  |
| 2-Methylnaphthalene                | 0.0159 | 0.00500 | "                  | 0.0333 | ND | 47.7                          | 15-130 |  |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0154 |         | "                  | 0.0333 |    | 46.3                          | 40-150 |  |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0136 |         | "                  | 0.0333 |    | 40.9                          | 40-150 |  |  |  |  |

| Matrix Spike Dup (BGE1053-MSD1)    |        |         | Source: 2305636-01 |        |    | Prepared & Analyzed: 05/31/23 |        |      |    |  |  |
|------------------------------------|--------|---------|--------------------|--------|----|-------------------------------|--------|------|----|--|--|
| Acenaphthene                       | 0.0162 | 0.00500 | mg/kg              | 0.0333 | ND | 48.7                          | 31-137 | 9.51 | 30 |  |  |
| Anthracene                         | 0.0149 | 0.00500 | "                  | 0.0333 | ND | 44.7                          | 30-120 | 1.11 | 30 |  |  |
| Benzo (a) anthracene               | 0.0154 | 0.00500 | "                  | 0.0333 | ND | 46.2                          | 30-120 | 12.1 | 30 |  |  |
| Benzo (a) pyrene                   | 0.0136 | 0.00500 | "                  | 0.0333 | ND | 40.8                          | 30-120 | 3.83 | 30 |  |  |
| Benzo (b) fluoranthene             | 0.0135 | 0.00500 | "                  | 0.0333 | ND | 40.5                          | 30-120 | 23.5 | 30 |  |  |
| Benzo (k) fluoranthene             | 0.0138 | 0.00500 | "                  | 0.0333 | ND | 41.3                          | 30-120 | 8.37 | 30 |  |  |
| Chrysene                           | 0.0155 | 0.00500 | "                  | 0.0333 | ND | 46.6                          | 30-120 | 10.6 | 30 |  |  |
| Dibenz (a,h) anthracene            | 0.0162 | 0.00500 | "                  | 0.0333 | ND | 48.5                          | 30-120 | 1.66 | 30 |  |  |
| Fluoranthene                       | 0.0142 | 0.00500 | "                  | 0.0333 | ND | 42.6                          | 30-120 | 6.87 | 30 |  |  |
| Fluorene                           | 0.0160 | 0.00500 | "                  | 0.0333 | ND | 48.1                          | 30-120 | 15.2 | 30 |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0134 | 0.00500 | "                  | 0.0333 | ND | 40.2                          | 30-120 | 9.08 | 30 |  |  |
| Pyrene                             | 0.0174 | 0.00500 | "                  | 0.0333 | ND | 52.1                          | 35-142 | 9.43 | 30 |  |  |
| 1-Methylnaphthalene                | 0.0178 | 0.00500 | "                  | 0.0333 | ND | 53.5                          | 15-130 | 7.47 | 50 |  |  |
| 2-Methylnaphthalene                | 0.0150 | 0.00500 | "                  | 0.0333 | ND | 45.0                          | 15-130 | 5.73 | 50 |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0158 |         | "                  | 0.0333 |    | 47.4                          | 40-150 |      |    |  |  |
| Surrogate: Fluoranthene-d10        | 0.0146 |         | "                  | 0.0333 |    | 43.9                          | 40-150 |      |    |  |  |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BGF0061 - EPA 3050B**

|  |       |       |           |  |       |      |        |       |    |       |
|--|-------|-------|-----------|--|-------|------|--------|-------|----|-------|
| <b>Blank (BGF0061-BLK1)</b>            |       |       |           | Prepared: 06/02/23 Analyzed: 06/05/23                    |       |      |        |       |    |       |
| Arsenic                                | ND    | 0.200 | mg/kg wet |  |       |      |        |       |    |       |
| <b>LCS (BGF0061-BS1)</b>               |       |       |           | Prepared: 06/02/23 Analyzed: 06/05/23                    |       |      |        |       |    |       |
| Arsenic                                | 42.0  | 0.200 | mg/kg wet | 40.0   |       | 105  | 80-120 |       |    |       |
| <b>Duplicate (BGF0061-DUP1)</b>        |       |       |           | Source: 2305637-01 Prepared: 06/02/23 Analyzed: 06/05/23 |       |      |        |       |    |       |
| Arsenic                                | 0.629 | 0.200 | mg/kg dry |  | 0.565 |      |        | 10.8  | 20 |       |
| <b>Matrix Spike (BGF0061-MS1)</b>      |       |       |           | Source: 2305637-01 Prepared: 06/02/23 Analyzed: 06/05/23 |       |      |        |       |    |       |
| Arsenic                                | 20.2  | 0.200 | mg/kg dry | 45.3   | 0.565 | 43.4 | 75-125 |       |    | QM-07 |
| <b>Matrix Spike Dup (BGF0061-MSD1)</b> |       |       |           | Source: 2305637-01 Prepared: 06/02/23 Analyzed: 06/05/23 |       |      |        |       |    |       |
| Arsenic                                | 20.3  | 0.200 | mg/kg dry | 45.3   | 0.565 | 43.6 | 75-125 | 0.604 | 25 | QM-07 |

**Batch BGF0118 - EPA 3050B**

|                                   |       |       |           |  |       |      |        |      |    |       |
|-----------------------------------|-------|-------|-----------|--|-------|------|--------|------|----|-------|
| <b>Blank (BGF0118-BLK1)</b>       |       |       |           | Prepared: 06/05/23 Analyzed: 06/06/23                    |       |      |        |      |    |       |
| Arsenic                           | ND    | 0.200 | mg/kg wet |  |       |      |        |      |    |       |
| <b>LCS (BGF0118-BS1)</b>          |       |       |           | Prepared: 06/05/23 Analyzed: 06/06/23                    |       |      |        |      |    |       |
| Arsenic                           | 39.2  | 0.200 | mg/kg wet | 40.0   |       | 97.9 | 80-120 |      |    |       |
| <b>Duplicate (BGF0118-DUP1)</b>   |       |       |           | Source: 2305637-18 Prepared: 06/05/23 Analyzed: 06/06/23 |       |      |        |      |    |       |
| Arsenic                           | 0.527 | 0.200 | mg/kg dry |  | 0.503 |      |        | 4.57 | 20 |       |
| <b>Matrix Spike (BGF0118-MS1)</b> |       |       |           | Source: 2305637-18 Prepared: 06/05/23 Analyzed: 06/06/23 |       |      |        |      |    |       |
| Arsenic                           | 19.7  | 0.200 | mg/kg dry | 42.8   | 0.503 | 45.0 | 75-125 |      |    | QM-07 |

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 - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BGF0118 - EPA 3050B**

**Matrix Spike Dup (BGF0118-MSD1)**

**Source: 2305637-18**

Prepared: 06/05/23 Analyzed: 06/06/23

|         |      |       |           |      |       |      |        |       |    |       |
|---------|------|-------|-----------|------|-------|------|--------|-------|----|-------|
| Arsenic | 19.8 | 0.200 | mg/kg dry | 42.8 | 0.503 | 45.1 | 75-125 | 0.322 | 25 | QM-07 |
|---------|------|-------|-----------|------|-------|------|--------|-------|----|-------|



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

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

**Summit Scientific**

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

**Batch BGF0049 - General Preparation**

| Duplicate (BGF0049-DUP1) |      | Source: 2305637-01 |   |  | Prepared & Analyzed: 06/01/23 |  |  |      |    |  |
|--------------------------|------|--------------------|---|--|-------------------------------|--|--|------|----|--|
| % Solids                 | 87.4 |                    | % |  | 88.4                          |  |  | 1.09 | 20 |  |





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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]

Project Manager: Jacob Whritenour

**Reported:**

06/06/23 14:11

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

**Summit Scientific**

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

**Batch BGF0044 - General Preparation**

**LCS (BGF0044-BS1)**

Prepared & Analyzed: 06/01/23

|    |      |  |          |      |     |        |
|----|------|--|----------|------|-----|--------|
| pH | 9.26 |  | pH Units | 9.18 | 101 | 95-105 |
|----|------|--|----------|------|-----|--------|

**Duplicate (BGF0044-DUP1)**

**Source: 2304301-01**

Prepared & Analyzed: 06/01/23

|    |      |  |          |      |       |    |
|----|------|--|----------|------|-------|----|
| pH | 7.98 |  | pH Units | 7.96 | 0.251 | 20 |
|----|------|--|----------|------|-------|----|

**Batch BGF0074 - General Preparation**

**LCS (BGF0074-BS1)**

Prepared & Analyzed: 06/02/23

|    |      |  |          |      |      |        |
|----|------|--|----------|------|------|--------|
| pH | 9.05 |  | pH Units | 9.18 | 98.6 | 95-105 |
|----|------|--|----------|------|------|--------|

**Duplicate (BGF0074-DUP1)**

**Source: 2305637-11**

Prepared & Analyzed: 06/02/23

|    |      |  |          |      |       |    |
|----|------|--|----------|------|-------|----|
| pH | 7.26 |  | pH Units | 7.21 | 0.691 | 20 |
|----|------|--|----------|------|-------|----|



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

Project: Noble - Kildow C 31-7x FAC

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
06/06/23 14:11

### Notes and Definitions

|       |   |
|-------|---|
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery. |
| 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   |

**ATTACHMENT B**  
**BORING LOGS**



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Dennis Gray

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger/Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 5/26/23 - 5/26/23

TOTAL WELL DEPTH (FT. BGS): 15

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Kildow C31-7X Facility

BORING ID: BH01

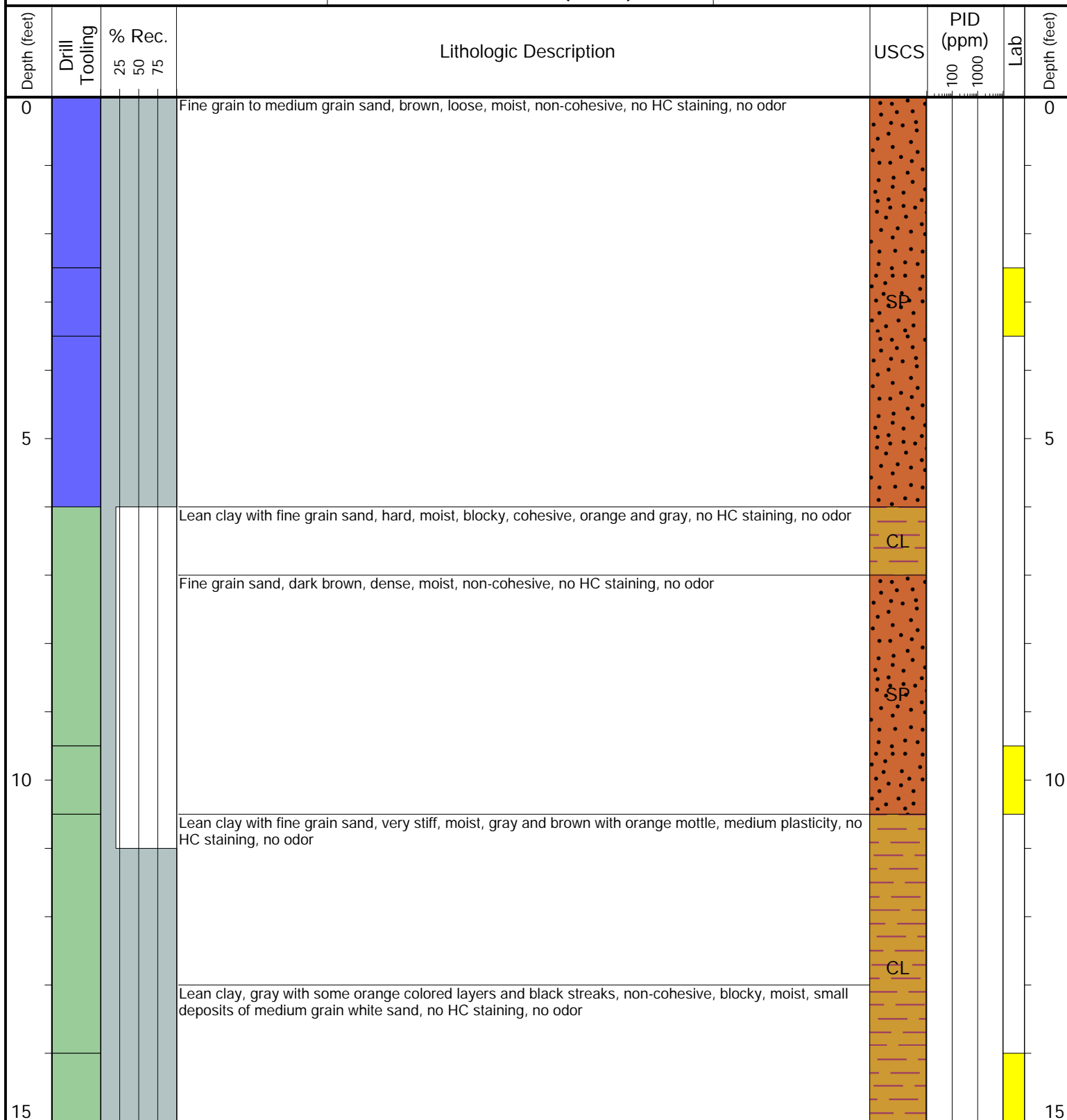
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.2706791193

LONGITUDE (NAD 83): -104.59105694

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Perforated Injection Tool

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Dennis Gray

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger/Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 5/26/23 - 5/26/23

TOTAL WELL DEPTH (FT. BGS): 15

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Kildow C31-7X Facility

BORING ID: BH02

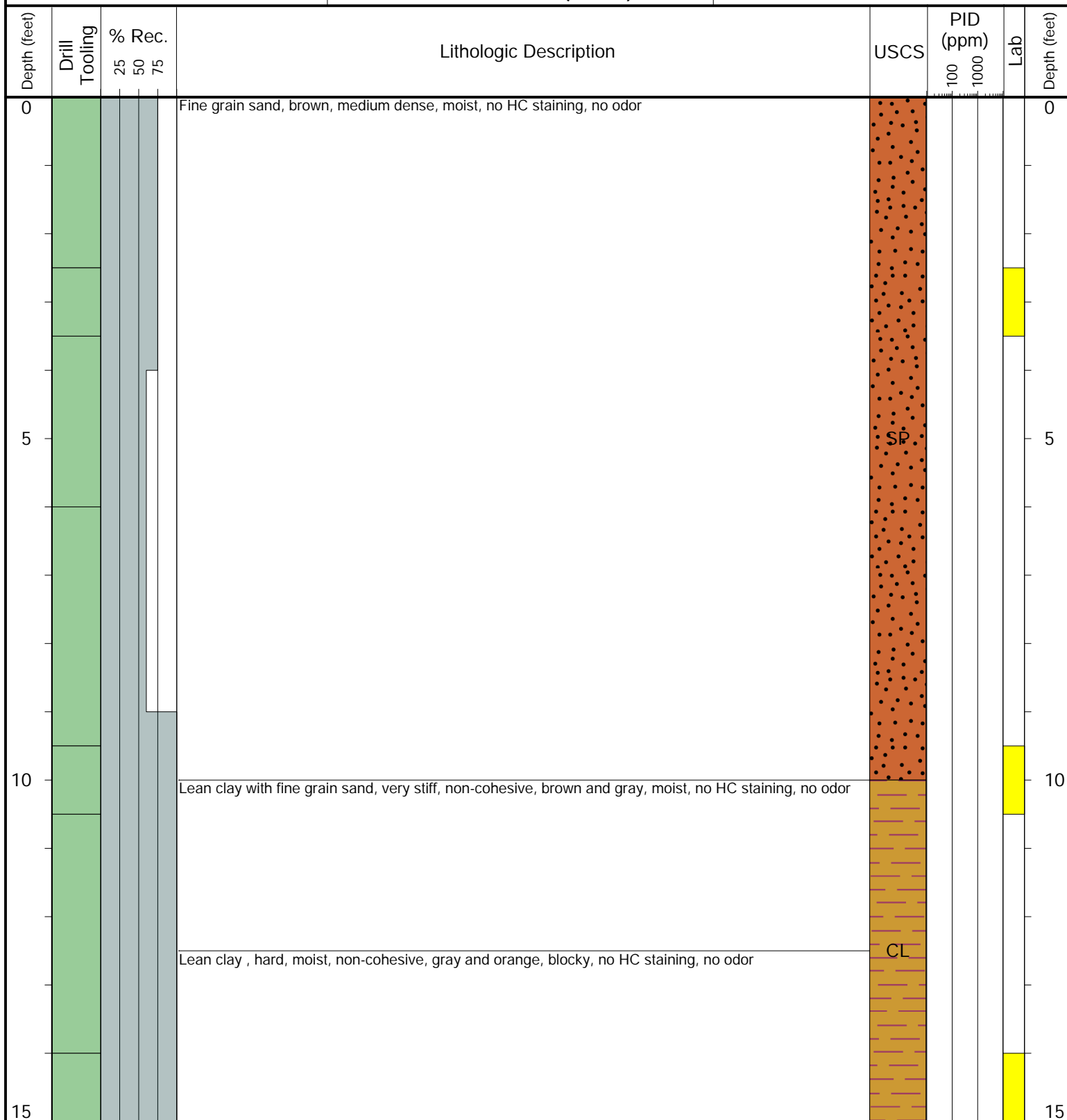
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.2707587484

LONGITUDE (NAD 83): -104.59106098

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Perforated Injection Tool

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Dennis Gray

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger/Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 5/26/23 - 5/26/23

TOTAL WELL DEPTH (FT. BGS): 15

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Kildow C31-7X Facility

BORING ID: BH03

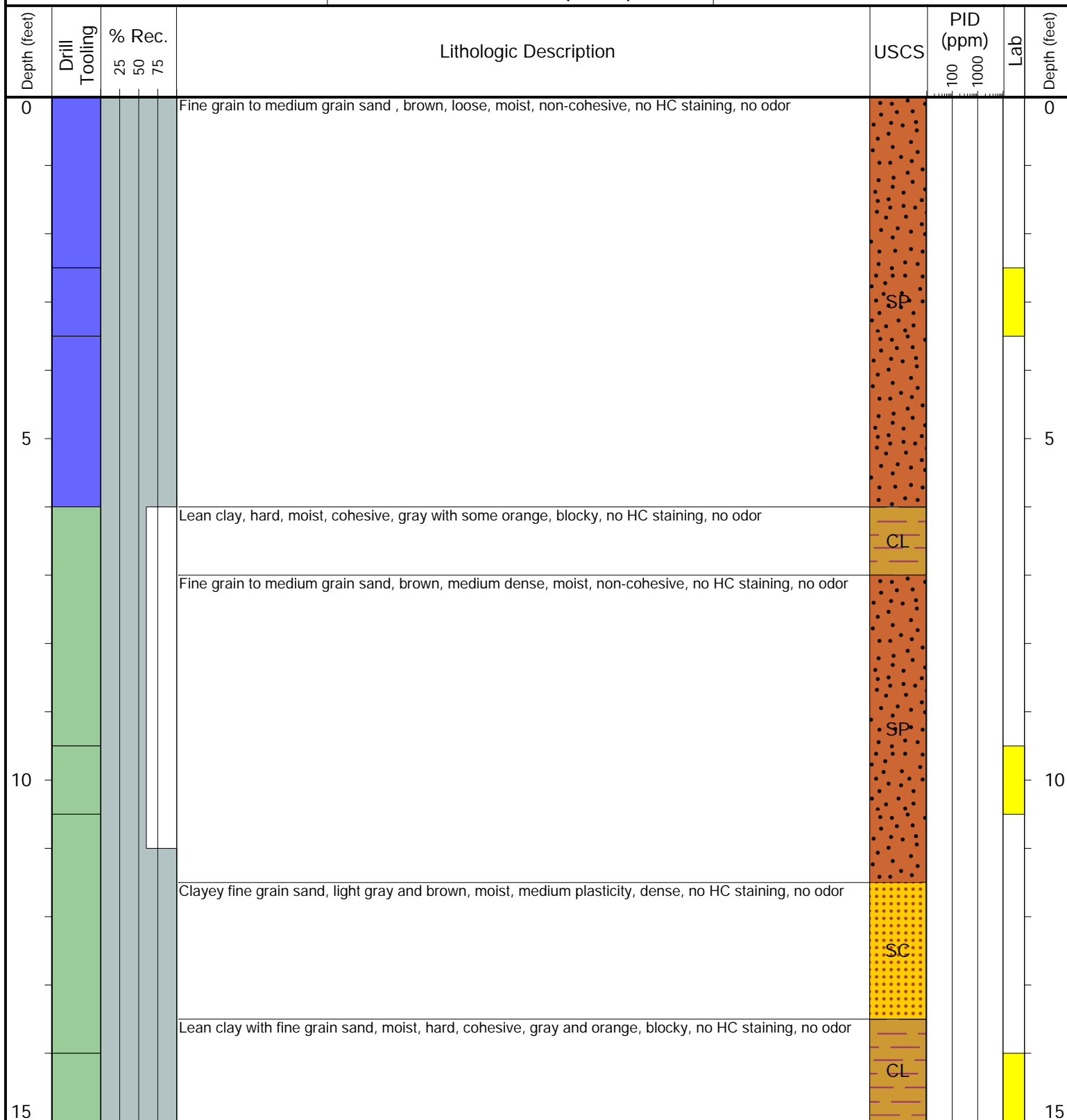
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.2706808033

LONGITUDE (NAD 83): -104.590945763

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Perforated Injection Tool

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Dennis Gray

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger/Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 5/26/23 - 5/26/23

TOTAL WELL DEPTH (FT. BGS): 15

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Kildow C31-7X Facility

BORING ID: BH04

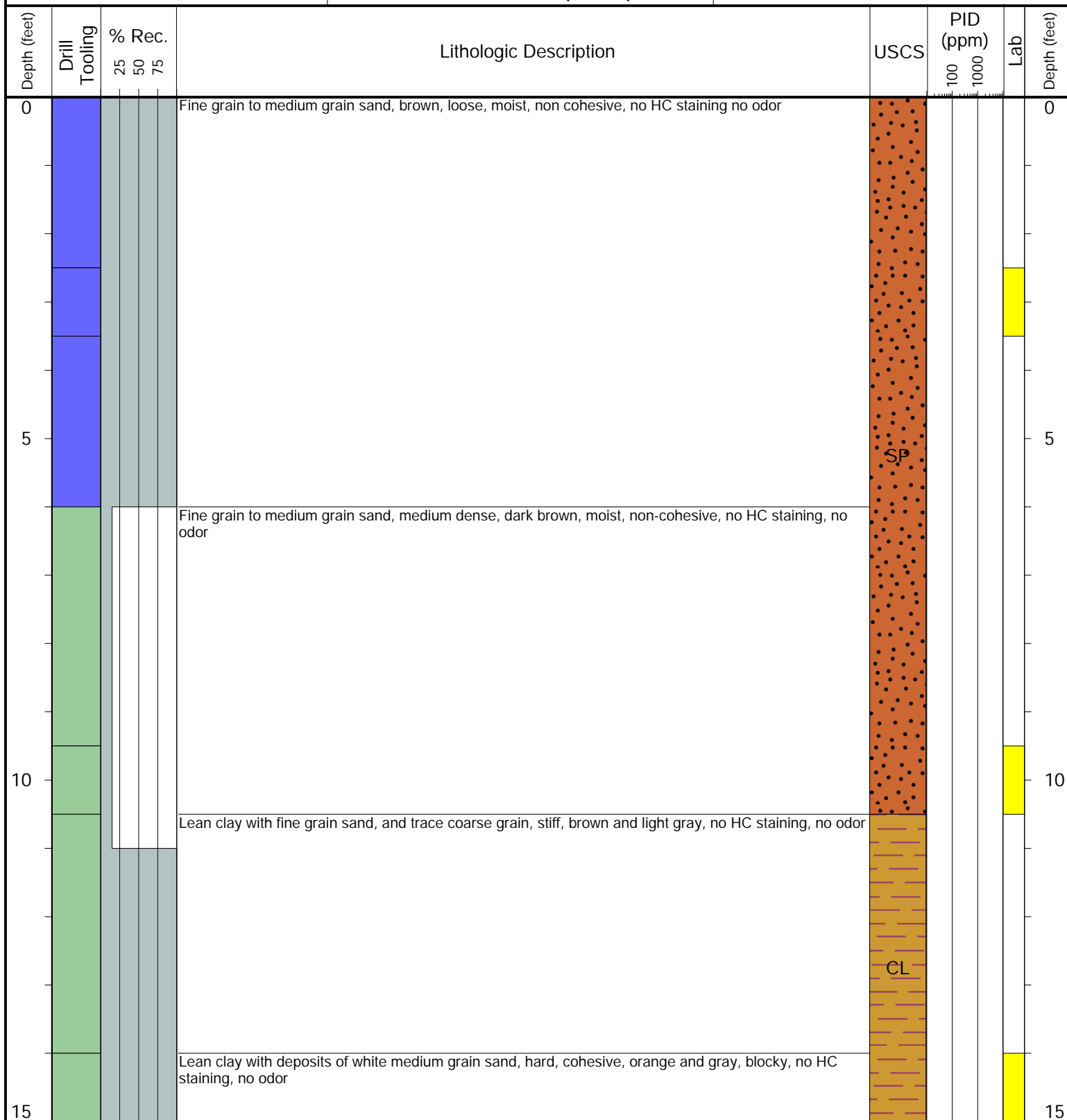
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.2705967306

LONGITUDE (NAD 83): -104.591055629

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Perforated Injection Tool

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.  
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Dennis Gray

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Hand Auger/Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 5/26/23 - 5/26/23

TOTAL WELL DEPTH (FT. BGS): 15

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Kildow C31-7X Facility

BORING ID: BH05

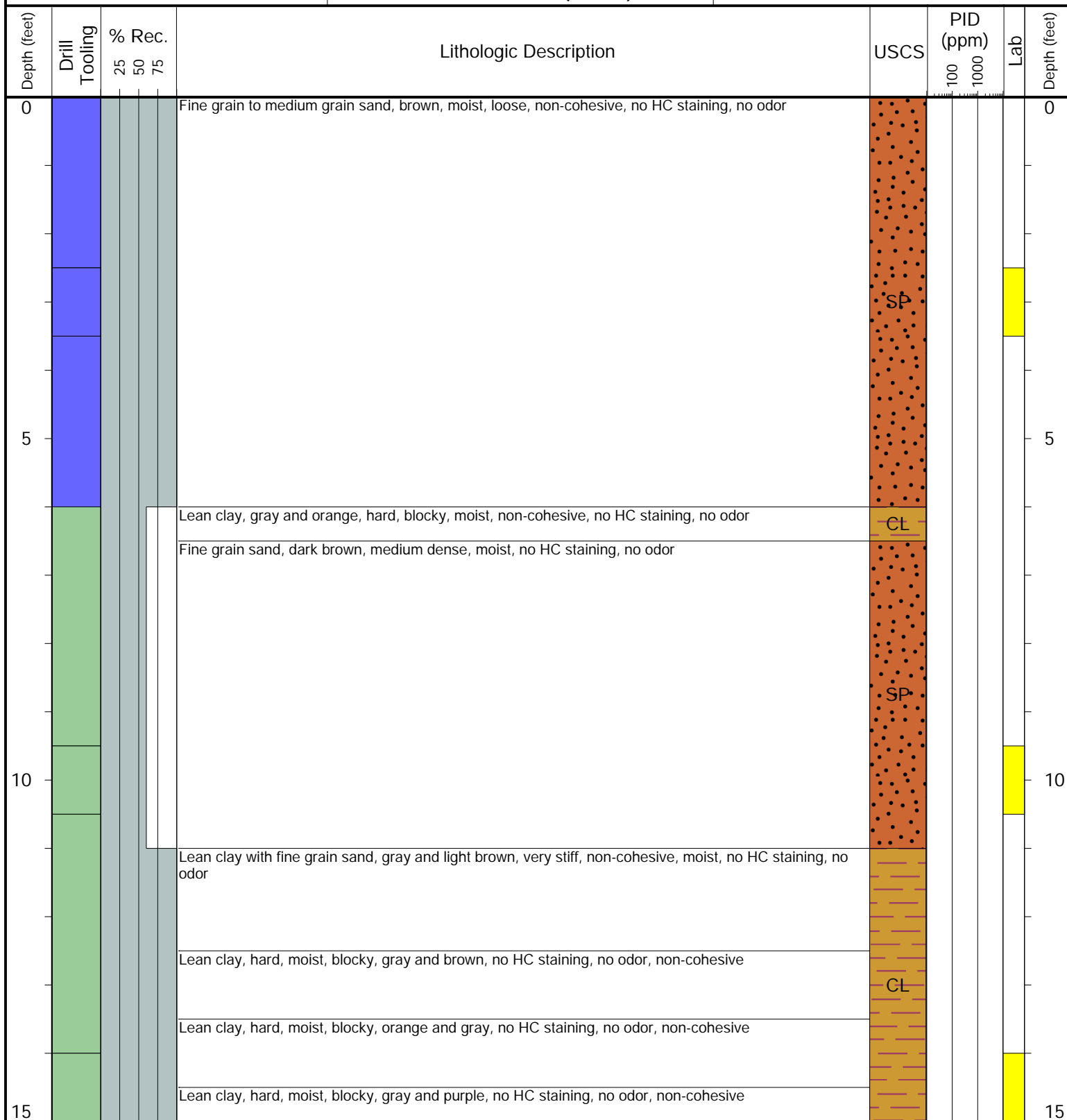
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.2706795057

LONGITUDE (NAD 83): -104.591166297

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Perforated Injection Tool

Hand Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab