

# **Harsch 42-27**

NWNE Sec. 27-T2N-R69W

**Remediation Project #: 21354**

Third Quarter 2023 Groundwater Monitoring

August 2023

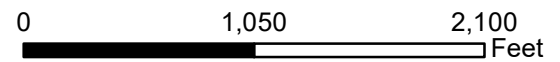
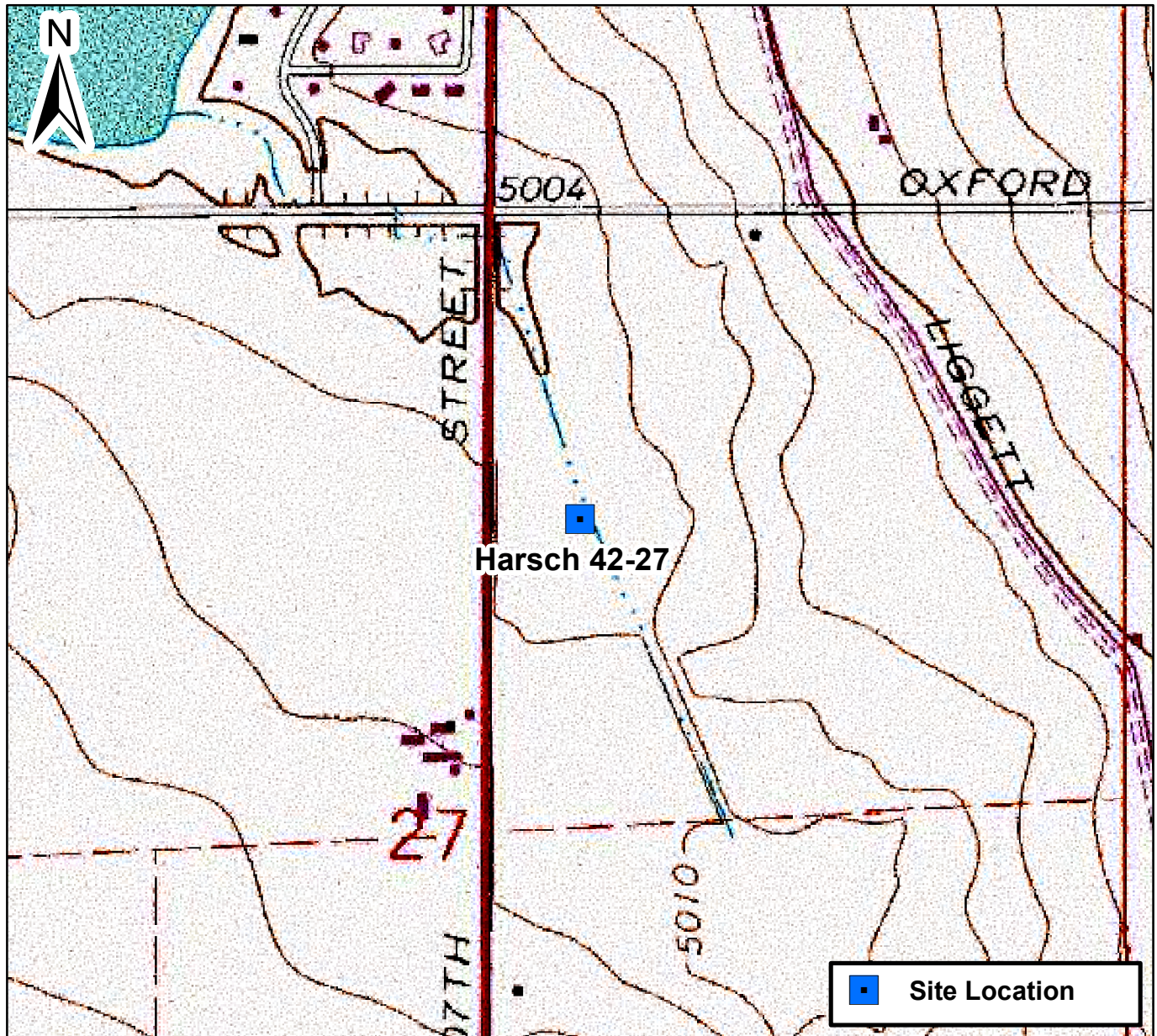
Prepared by Tasman, Inc.



On behalf of Crestone Peak Resources Operating, LLC



## FIGURES



## Figure 1

Site Location Map  
Harsch 42-27  
NWNE Sec. 27-T2N-R69W  
Boulder County, Colorado







|              |                  |
|--------------|------------------|
| DATE:        | January 30, 2023 |
| DESIGNED BY: | S. Vogt          |
| DRAWN BY:    | S. Kirylo        |



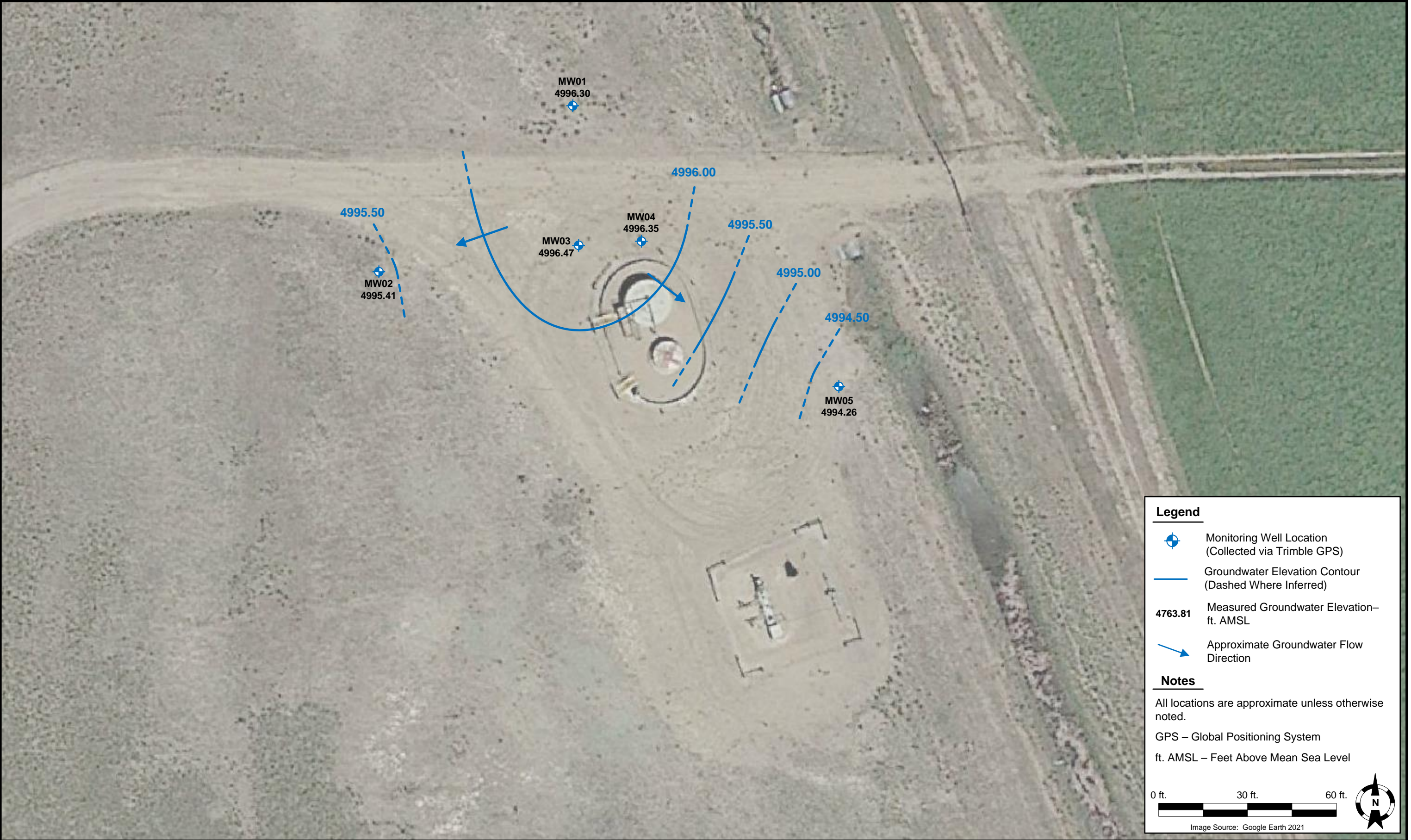
**Tasman, Inc.**  
6855 W. 119th Avenue  
Broomfield, Colorado 80020


**Crestone Peak Resources Operating, LLC**  
**Harsch 42-27**  
NWNE Sec. 27-T2N-R69W  
Boulder County, Colorado

Site Overview Map

**FIGURE**  
**2**





|                            |   |  |   |                    |
|----------------------------|---|--|---|--------------------|
| DATE:<br>November 28, 2023 |  <b>TASMAN</b><br>Tasman, Inc.<br>6855 W. 119th Avenue<br>Broomfield, Colorado 80020 | <b>Crestone Peak Resources Operating, LLC</b><br><b>Harsch 42-27</b><br>NWNE Sec. 27-T2N-R6W<br>Boulder County, Colorado | Groundwater Potentiometric<br>Surface Contour Map<br>(08/09/2023) | <b>FIGURE</b><br>3 |
| DESIGNED BY:<br>S. Vogt    |   |  |   |                    |
| DRAWN BY:<br>L. Reed       |   |  |   |                    |



| MW01                          |            |
|-------------------------------|------------|
| Compound                      | 08/09/2023 |
| Benzene (µg/L)                | <1.0       |
| Toluene (µg/L)                | <1.0       |
| Ethylbenzene (µg/L)           | <1.0       |
| Total Xylenes (µg/L)          | <2.0       |
| Naphthalene (µg/L)            | <1.0       |
| 1,2,4-Trimethylbenzene (µg/L) | <1.0       |
| 1,3,5-Trimethylbenzene (µg/L) | <1.0       |
| Chloride (mg/L)               | 1,330      |
| Sulfate (mg/L)                | 10,700     |
| Total Dissolved Solids (mg/L) | 12,100     |


| MW02                          |            |
|-------------------------------|------------|
| Compound                      | 08/09/2023 |
| Benzene (µg/L)                | <1.0       |
| Toluene (µg/L)                | <1.0       |
| Ethylbenzene (µg/L)           | <1.0       |
| Total Xylenes (µg/L)          | <2.0       |
| Naphthalene (µg/L)            | <1.0       |
| 1,2,4-Trimethylbenzene (µg/L) | <1.0       |
| 1,3,5-Trimethylbenzene (µg/L) | <1.0       |
| Chloride (mg/L)               | 945        |
| Sulfate (mg/L)                | 11,600     |
| Total Dissolved Solids (mg/L) | 12,700     |

| MW03                          |            |
|-------------------------------|------------|
| Compound                      | 08/09/2023 |
| Benzene (µg/L)                | <1.0       |
| Toluene (µg/L)                | <1.0       |
| Ethylbenzene (µg/L)           | <1.0       |
| Total Xylenes (µg/L)          | <2.0       |
| Naphthalene (µg/L)            | <1.0       |
| 1,2,4-Trimethylbenzene (µg/L) | <1.0       |
| 1,3,5-Trimethylbenzene (µg/L) | <1.0       |
| Chloride (mg/L)               | 2,330      |
| Sulfate (mg/L)                | 15,200     |
| Total Dissolved Solids (mg/L) | 17,600     |

| MW04                          |            |
|-------------------------------|------------|
| Compound                      | 08/09/2023 |
| Benzene (µg/L)                | <1.0       |
| Toluene (µg/L)                | <1.0       |
| Ethylbenzene (µg/L)           | <1.0       |
| Total Xylenes (µg/L)          | <2.0       |
| Naphthalene (µg/L)            | <1.0       |
| 1,2,4-Trimethylbenzene (µg/L) | <1.0       |
| 1,3,5-Trimethylbenzene (µg/L) | <1.0       |
| Chloride (mg/L)               | 2,790      |
| Sulfate (mg/L)                | 18,000     |
| Total Dissolved Solids (mg/L) | 21,000     |

| MW05                          |            |
|-------------------------------|------------|
| Compound                      | 08/09/2023 |
| Benzene (µg/L)                | <1.0       |
| Toluene (µg/L)                | <1.0       |
| Ethylbenzene (µg/L)           | <1.0       |
| Total Xylenes (µg/L)          | <2.0       |
| Naphthalene (µg/L)            | <1.0       |
| 1,2,4-Trimethylbenzene (µg/L) | <1.0       |
| 1,3,5-Trimethylbenzene (µg/L) | <1.0       |
| Chloride (mg/L)               | 2,660      |
| Sulfate (mg/L)                | 19,300     |
| Total Dissolved Solids (mg/L) | 22,200     |

Legend

 Monitoring Well Location – Below  
ECMC Table 915-1 Standards  
(Collected via Trimble GPS)

| ECMC Table 915-1<br>Groundwater Standards |                                      |
|---|--------------------------------------|
| Compound                                  | Date                                 |
| Benzene (µg/L)                            | 5                                    |
| Toluene (µg/L)                            | 560                                  |
| Ethylbenzene (µg/L)                       | 700                                  |
| Total Xylenes (µg/L)                      | 1,400                                |
| Naphthalene (µg/L)                        | 140                                  |
| 1,2,4-Trimethylbenzene (µg/L)             | 67                                   |
| 1,3,5-Trimethylbenzene (µg/L)             | 67                                   |
| Chloride (mg/L)                           | 250 or 1.25 x<br>Local<br>Background |
| Sulfate (mg/L)                            | 250 or 1.25 x<br>Local<br>Background |
| Total Dissolved Solids (mg/L)             | 1.25 x Local<br>Background           |

Notes

All locations are approximate unless otherwise noted.

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

GPS – Global Positioning System

µg/L – micrograms per liter

mg/L – milligrams per liter

ECMC – Colorado Energy and Carbon  
Management Commission

0 ft. 30 ft. 60 ft.

Image Source: Google Earth



DATE: October 23, 2023

DESIGNED BY: S. Vogt

DRAWN BY: L. Molson



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

Crestone Peak Resources Operating, LLC  
Harsch 42-27  
NWNE Sec. 27-T2N-R69W  
Boulder County, Colorado

Groundwater Analytical Map  
(08/09/2023)

FIGURE  
4

## **TABLES**

**TABLE 1**  
**HARSCH 42-27**  
**SOIL SAMPLE LOCATIONS**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



| Soil Sample Location | Depth   | Date       | PID Reading (ppm) | Latitude  | Longitude   | GPS PDOP Value | Lab (Y/N) |
|----------------------|---------|------------|-------------------|-----------|-------------|----------------|-----------|
| SB01@5-6             | 5'-6'   | 10/08/2021 | 7.4               | 40.112769 | -105.101412 | -              | Y         |
| SB02@4-5             | 4'-5'   | 10/08/2021 | 3.2               | 40.112755 | -105.101507 | -              | Y         |
| SB03@3-4             | 3'-4'   | 10/08/2021 | 2.6               | 40.112654 | -105.101487 | -              | Y         |
| SB03@4-5             | 4'-5'   | 10/08/2021 | 2.7               | 40.112654 | -105.101487 | -              | Y         |
| SB04@4-5             | 4'-5'   | 10/08/2021 | 1.6               | 40.112556 | -105.101382 | -              | Y         |
| BKG01@4-5            | 4'-5'   | 10/08/2021 | -                 | 40.112693 | -105.101568 | -              | Y         |
| SB01_GW              | -       | 10/08/2021 | -                 | 40.112789 | -105.101409 | -              | Y         |
| BKG01_GW             | -       | 10/08/2021 | -                 | 40.112693 | -105.101568 | -              | Y         |
| MW01@12'             | 12'     | 10/27/2022 | 0.0               | 40.112893 | -105.101424 | -              | Y         |
| MW02@12'             | 12'     | 10/27/2022 | 0.0               | 40.112739 | -105.101657 | -              | Y         |
| MW03@2'              | 2'      | 10/27/2022 | 2.5               | 40.112764 | -105.101417 | -              | Y         |
| MW03@12'             | 12'     | 10/27/2022 | 0.0               | 40.112764 | -105.101417 | -              | Y         |
| MW04@2'              | 2'      | 10/27/2022 | 3.5               | 40.112768 | -105.101340 | -              | Y         |
| MW04@10'-11'         | 10'-11' | 10/27/2022 | 0.0               | 40.112768 | -105.101340 | -              | Y         |
| MW05@12'             | 12'     | 10/27/2022 | 0.0               | 40.112634 | -105.101102 | -              | Y         |

**Notes:**

PID = Photoionization Detector

ppm = parts per million

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

10/29/20 [date] = Data collected by 3rd-party consultant(s)



**TABLE 2**  
**HARSCH 42-27**  
**SOIL ANALYTICAL DATA - VOCs**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

| Soil Sample Location                           | Depth   | Date       | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Naphthalene (mg/kg) | TVPH-GRO (mg/kg) | TEPH-DRO (mg/kg) | TEPH-ORO (mg/kg) | 1,2,4-TMB (mg/kg) | 1,3,5-TMB (mg/kg) |
|--|---------|------------|-----------------|-----------------|----------------------|-----------------------|---------------------|------------------|------------------|------------------|-------------------|-------------------|
| ECMC Organic Compounds in Soils <sup>(1)</sup> |         |            | 0.0026          | 0.69            | 0.78                 | 9.9                   | 0.0038              | 500              |                  |                  | 0.0081            | 0.0087            |
| ECMC Organic Compounds in Soils <sup>(2)</sup> |         |            | 1.2             | 490             | 5.8                  | 58                    | 2                   | 500              |                  |                  | 30                | 27                |
| SB01@5-6                                       | 5'-6'   | 10/08/2021 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            |                  |                  | <0.0050           | <0.0050           |
| SB02@4-5                                       | 4'-5'   | 10/08/2021 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            |                  |                  | <0.0050           | <0.0050           |
| SB03@3-4                                       | 3'-4'   | 10/08/2021 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            |                  |                  | <0.0050           | <0.0050           |
| SB03@4-5                                       | 4'-5'   | 10/08/2021 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            |                  |                  | <0.0050           | <0.0050           |
| SB04@4-5                                       | 4'-5'   | 10/08/2021 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            |                  |                  | <0.0050           | <0.0050           |
| MW01@12'                                       | 12'     | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW02@12'                                       | 12'     | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW03@12'                                       | 12'     | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW03@2'  | 2'      | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW04@10-11'                                    | 10'-11' | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW04@2'  | 2'      | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |
| MW05@12'                                       | 12'     | 10/27/2022 | <0.0020         | <0.0050         | <0.0050              | <0.010                | <0.0038             | <0.50            | <50              | <50              | <0.0050           | <0.0050           |

**Notes:**

VOCs = Volatile Organic Compounds

(1) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy and Carbon Management Commission

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

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

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

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

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

10/29/20 [date] = Data collected by 3rd-party consultant(s)

**TABLE 3**  
**HARSCH 42-27**  
**SOIL ANALYTICAL DATA - PAHs**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

| Soil Sample Location                           | Depth   | Date       | Acenaphthene (mg/kg) | Anthracene (mg/kg) | Benzo(a)A (mg/kg) | Benzo(b)F (mg/kg) | Benzo(k)F (mg/kg) | Benzo(a)P (mg/kg) | Chrysene (mg/kg) | D (a,h) A (mg/kg) | Fluoranthene (mg/kg) | Fluorene (mg/kg) | 1,2,3-CD (mg/kg) | 1-M (mg/kg) | 2-M (mg/kg) | Pyrene (mg/kg) |
|--|---------|------------|----------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|----------------------|------------------|------------------|-------------|-------------|----------------|
| ECMC Organic Compounds in Soils <sup>(1)</sup> |         |            | 0.55                 | 5.8                | 0.011             | 0.3               | 2.9               | 0.24              | 9                | 0.96              | 8.9                  | 0.54             | 0.98             | 0.006       | 0.019       | 1.3            |
| ECMC Organic Compounds in Soils <sup>(2)</sup> |         |            | 360                  | 1,800              | 1.1               | 1.1               | 11                | 0.11              | 110              | 0.11              | 240                  | 240              | 1.1              | 18          | 24          | 180            |
| SB01@5-6                                       | 5'-6'   | 10/08/2021 | <0.0050              | <0.0050            | <0.0050           | <0.0050           | <0.0050           | <0.0050           | <0.0050          | <0.0050           | <0.0050              | <0.0050          | <0.0050          | <0.0050     | <0.0050     | <0.0050        |
| SB02@4-5                                       | 4'-5'   | 10/08/2021 | <0.0050              | <0.0050            | <0.0050           | <0.0050           | <0.0050           | <0.0050           | <0.0050          | <0.0050           | <0.0050              | <0.0050          | <0.0050          | <0.0050     | <0.0050     | <0.0050        |
| SB03@3-4                                       | 3'-4'   | 10/08/2021 | <0.0050              | <0.0050            | <0.0050           | <0.0050           | <0.0050           | <0.0050           | <0.0050          | <0.0050           | <0.0050              | <0.0050          | <0.0050          | <0.0050     | <0.0050     | <0.0050        |
| SB03@4-5                                       | 4'-5'   | 10/08/2021 | <0.0050              | <0.0050            | <0.0050           | <0.0050           | <0.0050           | <0.0050           | <0.0050          | <0.0050           | <0.0050              | <0.0050          | <0.0050          | <0.0050     | <0.0050     | <0.0050        |
| SB04@4-5                                       | 4'-5'   | 10/08/2021 | <0.0050              | <0.0050            | <0.0050           | <0.0050           | <0.0050           | <0.0050           | <0.0050          | <0.0050           | <0.0050              | <0.0050          | <0.0050          | <0.0050     | <0.0050     | <0.0050        |
| MW01@12'                                       | 12'     | 10/27/2022 | <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       |
| MW02@12'                                       | 12'     | 10/27/2022 | <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       |
| MW03@12'                                       | 12'     | 10/27/2022 | <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       |
| MW03@2'  | 2'      | 10/27/2022 | <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       |
| MW04@10-11'                                    | 10'-11' | 10/27/2022 | <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       |
| MW04@2'  | 2'      | 10/27/2022 | <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       |
| MW05@12'                                       | 12'     | 10/27/2022 | <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       |

**Notes:**

PAHs = Polycyclic Aromatic Hydrocarbons

(1) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy and Carbon Management Commission

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

mg/kg = milligrams per kilogram

Benzo(a)A = Benzo(a)Anthracene

Benzo(b)F = Benzo(b)Fluoranthene

Benzo(k)F = Benzo(k)Fluoranthene

Benzo(a)P = Benzo(a)Pyrene

D (a,h) A = Dibenzo(a,h)Anthracene

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

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

10/29/20 [date] = Data collected by 3rd-party consultant(s)



**TABLE 4**  
**HARSCH 42-27**



**SOIL ANALYTICAL DATA - METALS**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**

| Soil Sample Location                | Depth   | Date       | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (VI) (mg/kg) | Copper (mg/kg) | Lead (mg/kg) | Nickel (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | Zinc (mg/kg) |
|-------------------------------------|---------|------------|-----------------|----------------|-----------------|-----------------------|----------------|--------------|----------------|------------------|----------------|--------------|
| ECMC Metals in Soils <sup>(1)</sup> |         |            | 0.29            | 82             | 0.38            | 0.00067               | 46             | 14           | 26             | 0.26             | 0.8            | 370          |
| ECMC Metals in Soils <sup>(2)</sup> |         |            | 0.68            | 15,000         | 71              | 0.3                   | 3,100          | 400          | 1,500          | 390              | 390            | 23,000       |
| SB01@5-6                            | 5'-6'   | 10/08/2021 | 3.53*           | 117*           | 0.299           | <0.30                 | 18.8           | 14.5*        | 18.8           | 1.32             | 0.109          | 78.6         |
| SB02@4-5                            | 4'-5'   | 10/08/2021 | 5.07*           | 116*           | 0.254           | <0.30                 | 18.3           | 16.7*        | 16.1           | 1.40             | 0.101          | 74.6         |
| SB03@3-4                            | 3'-4'   | 10/08/2021 | 5.73*           | 65.7           | 0.284           | <0.30                 | 16.7           | 15.8*        | 18.0           | 0.988*           | 0.106          | 74.6         |
| SB03@4-5                            | 4'-5'   | 10/08/2021 | 6.81*           | 75.6           | 0.280           | <0.30                 | 17.9           | 14.6*        | 18.5           | 1.05*            | 0.0986         | 83.0         |
| SB04@4-5                            | 4'-5'   | 10/08/2021 | 6.41*           | 101*           | 0.288           | <0.30                 | 18.9           | 15.2*        | 18.9           | 1.37             | 0.102          | 90.6         |
| MW01@12'                            | 12'     | 10/27/2022 | 2.06            | 112            | 0.309           | <0.30                 | 10.6           | 12.4         | 10.7           | <0.213           | 0.0677         | 40.8         |
| MW02@12'                            | 12'     | 10/27/2022 | 1.77            | 63.3           | 0.282           | <0.30                 | 9.90           | 11.5         | 10.7           | <0.213           | 0.0708         | 38.1         |
| MW03@12'                            | 12'     | 10/27/2022 | 1.84            | 77.0           | 0.307           | <0.30                 | 10.5           | 11.7         | 10.3           | 0.274            | 0.0668         | 42.6         |
| MW03@2'                             | 2'      | 10/27/2022 | 2.04            | 92.7           | 0.333           | <0.30                 | 9.35           | 10.4         | 8.86           | 0.272            | 0.0718         | 32.9         |
| MW04@10-11'                         | 10'-11' | 10/27/2022 | 2.11            | 112            | 0.330           | <0.30                 | 11.3           | 12.3         | 11.3           | 0.363            | 0.0686         | 43.4         |
| MW04@2'                             | 2'      | 10/27/2022 | 2.82            | 80.9           | 0.262           | <0.30                 | 9.87           | 10.8         | 8.79           | 0.336            | 0.0692         | 32.2         |
| MW05@12'                            | 12'     | 10/27/2022 | 1.95            | 70.0           | 0.334           | <0.30                 | 11.0           | 12.2         | 10.8           | 0.510            | 0.0932         | 42.8         |
| BACKGROUND                          |         |            |                 |                |                 |                       |                |              |                |                  |                |              |
| BKG01@4-5                           | 4'-5'   | 10/08/2021 | 5.61            | 94.9           | <0.251          | <0.30                 | 16.3           | 13.4         | 16.9           | 1.04             | 0.0725         | 71.2         |
| Average Background @ 4'-5' x1.25    |         |            | 7.01            | 119            | -               | -                     | 20.4           | 16.8         | 21.1           | 1.30             | 0.0906         | 89.0         |

**Notes:**

(1) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy and Carbon Management Commission

(<) = Analytical result is less than the indicated laboratory minimum detection limit

mg/kg = milligrams per kilogram

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations

**Average background concentration x1.25**

10/29/20 [date] = Data collected by 3rd-party consultant(s)

*Italics* = Laboratory minimum detection limit exceeds the ECMC Table 915-1 Standard

\* Result exceeded the ECMC Table 915-1 standard, but was within site-specific 1.25x background multiplier levels

- = Constituent not analyzed

TABLE 5  
HARSCH 42-27



SOIL ANALYTICAL DATA - SOIL RECLAMATION  
CRESTONE PEAK RESOURCES OPERATING, LLC

| Soil Sample Location                                 | Depth   | Date       | pH      | SAR   | EC (mmhos/cm) | Boron (mg/L) |
|--|---------|------------|---------|-------|---------------|--------------|
| ECMC Soil Suitability for Reclamation <sup>(1)</sup> |         |            | 6 - 8.3 | < 6   | < 4           | 2            |
| SB01@5-6   | 5'-6'   | 10/08/2021 | 8.34    | 12.1* | 4.21*         | 0.499        |
| SB02@4-5   | 4'-5'   | 10/08/2021 | 8.16    | 11.9* | 7.96*         | 0.209        |
| SB03@3-4   | 3'-4'   | 10/08/2021 | 8.27    | 13.8* | 11.5          | 0.357        |
| SB03@4-5   | 4'-5'   | 10/08/2021 | 8.25    | 13.8* | 10.8          | 0.335        |
| SB04@4-5   | 4'-5'   | 10/08/2021 | 8.25    | 13.3* | 10.3          | 0.284        |
| MW01@12'   | 12'     | 10/27/2022 | 8.21    | 14.8  | 5.24          | 0.817        |
| MW02@12'   | 12'     | 10/27/2022 | 8.50    | 13.8  | 3.40          | 1.47         |
| MW03@12'   | 12'     | 10/27/2022 | 8.07    | 15.7  | 9.94          | 1.37         |
| MW03@2'  | 2'      | 10/27/2022 | 7.71    | 16.4  | 11.6          | 0.567        |
| MW04@10-11'  | 10'-11' | 10/27/2022 | 8.31    | 19.5  | 9.11          | 1.29         |
| MW04@2'  | 2'      | 10/27/2022 | 8.21    | 16.2  | 8.89          | 0.493        |
| MW05@12'   | 12'     | 10/27/2022 | 8.15    | 18.0  | 9.43          | 1.33         |
| BACKGROUND   |         |            |         |       |               |              |
| BKG01@4-5  | 4'-5'   | 10/08/2021 | 8.29    | 15.5  | 8.58          | 0.325        |

**Notes:**

(1) Standards for soil are taken from ECMC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

ECMC = Colorado Energy and Carbon Management Commission

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

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

pH = Potential of Hydrogen

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Soil Suitability for Reclamation Concentrations

**Average background concentration**

10/29/20 [date] = Data collected by 3rd-party consultant(s)

\* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations



**TABLE 6**  
**HARSCH 42-27**  
**GROUNDWATER ANALYTICAL DATA**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



| Groundwater Sample ID  | Date       | Benzene (µg/L)        | Toluene (µg/L) | Ehtylbenzene (µg/L) | Total Xylenes (µg/L) | Naphthalene (µg/L) | 1,2,4-TMB (µg/L) | 1,3,5-TMB (µg/L) | Chloride (mg/L)                     | Sulfate (mg/L)                      | TDS (mg/L)                   |
|--|------------|-----------------------|----------------|---------------------|----------------------|--------------------|------------------|------------------|-------------------------------------|-------------------------------------|------------------------------|
| <b>ECMC Organic Compounds in Groundwater and Groundwater Inorganic Parameters <sup>(1)</sup></b> |            | <b>5</b>              | <b>560</b>     | <b>700</b>          | <b>1,400</b>         | <b>140</b>         | <b>67</b>        | <b>67</b>        | <b>250 or &lt;1.25 x Background</b> | <b>250 or &lt;1.25 x Background</b> | <b>&lt;1.25 x Background</b> |
| SB01_GW  | 10/08/2021 | 88                    | 27             | 2.1                 | 42                   | <1.0               | 5.3              | 4                | -                                   | -                                   | -                            |
| BKG01_GW   | 10/08/2021 | -                     | -              | -                   | -                    | -                  | -                | -                | -                                   | -                                   | -                            |
| MW01   | 11/23/2022 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,350                               | 11,700                              | 13,100                       |
|  | 02/03/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 911                                 | 11,300                              | 13,000                       |
|  | 05/10/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,430                               | 9,750                               | 11,500                       |
|  | 08/09/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,330                               | 10,700                              | 12,100                       |
| MW02   | 11/23/2022 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | -                                   | -                                   | -                            |
|  | 02/03/2023 | NS - Unable to locate |                |                     |                      |                    |                  |                  |                                     |                                     |                              |
|  | 05/10/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,100                               | 12,200                              | 13,600                       |
|  | 08/09/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 945                                 | 11,600                              | 12,700                       |
| MW03   | 11/23/2022 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,580                               | 13,500                              | 16,300                       |
|  | 02/03/2023 | NS - Unable to locate |                |                     |                      |                    |                  |                  |                                     |                                     |                              |
|  | 05/10/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,610                               | 15,400                              | 18,300                       |
|  | 08/09/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,330                               | 15,200                              | 17,600                       |
| MW04   | 11/23/2022 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,740                               | 16,600                              | 18,700                       |
|  | 02/03/2023 | NS - Unable to locate |                |                     |                      |                    |                  |                  |                                     |                                     |                              |
|  | 05/10/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3,140                               | 19,200                              | 22,500                       |
|  | 08/09/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,790                               | 18,000                              | 21,000                       |
| MW05   | 11/23/2022 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | -                                   | -                                   | -                            |
|  | 02/03/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1,720                               | 19,600                              | 21,700                       |
|  | 05/10/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,820                               | 19,300                              | 22,200                       |
|  | 08/09/2023 | <1.0                  | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2,660                               | 19,300                              | 22,200                       |

**Notes:**

(1) Standards for groundwater are taken from ECMC Table 915-1: Organic Compounds in Groundwater and Groundwater Inorganic Parameters (Effective January 15, 2021)

ECMC = Colorado Energy and Carbon Management Commission

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

µg/L = micrograms per liter

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

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

TDS = Total Dissolved Solids

**BOLD** = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Groundwater and Groundwater Inorganic Parameters

10/29/20 [date] = Data collected by 3rd-party consultant(s)

- = Constituent not analyzed

NS = Not sampled

**TABLE 7**  
**HARSCH 42-27**  
**GROUNDWATER ELEVATION DATA**  
**CRESTONE PEAK RESOURCES OPERATING, LLC**



| Groundwater Sample ID | Date       | Top of Casing Elevation (ft. AMSL) | Total Depth (ft.) | Depth to Water (ft.) | Depth to LNAPL (ft.) | LNAPL Thickness (ft.) | Groundwater Elevation* (ft. AMSL) |
|-----------------------|------------|------------------------------------|-------------------|----------------------|----------------------|-----------------------|-----------------------------------|
| MW01                  | 11/23/2022 | 4,998.50                           | 10.45             | 7.89                 | ND                   |                       | 4,990.61                          |
|                       | 02/03/2023 |                                    | 10.48             | 4.19                 | ND                   |                       | 4,994.31                          |
|                       | 05/10/2023 |                                    | 10.45             | 2.70                 | ND                   |                       | 4,995.80                          |
|                       | 08/09/2023 |                                    | 10.43             | 2.20                 | ND                   |                       | 4,996.30                          |
| MW02                  | 11/23/2022 | 4,998.65                           | 11.10             | 7.57                 | ND                   |                       | 4,991.08                          |
|                       | 02/03/2023 |                                    | Unable to locate  |                      |                      |                       |                                   |
|                       | 05/10/2023 |                                    | 11.11             | 1.35                 | ND                   |                       | 4997.30                           |
|                       | 08/09/2023 |                                    | 11.12             | 3.24                 | ND                   |                       | 4995.41                           |
| MW03                  | 11/23/2022 | 4,999.83                           | 10.15             | 5.73                 | ND                   |                       | 4,994.10                          |
|                       | 02/03/2023 |                                    | Unable to locate  |                      |                      |                       |                                   |
|                       | 05/10/2023 |                                    | 10.15             | 3.74                 | ND                   |                       | 4996.09                           |
|                       | 08/09/2023 |                                    | 11.16             | 3.81                 | ND                   |                       | 4988.67                           |
| MW04                  | 11/23/2022 | 4,999.70                           | 11.34             | 9.25                 | ND                   |                       | 4,990.45                          |
|                       | 02/03/2023 |                                    | Unable to locate  |                      |                      |                       |                                   |
|                       | 05/10/2023 |                                    | 11.33             | 3.83                 | ND                   |                       | 4995.87                           |
|                       | 08/09/2023 |                                    | 11.32             | 3.35                 | ND                   |                       | 4996.35                           |
| MW05                  | 11/23/2022 | 5,000.69                           | 11.14             | 10.62                | ND                   |                       | 4,990.07                          |
|                       | 02/03/2023 |                                    | 11.34             | 8.78                 | ND                   |                       | 4,991.91                          |
|                       | 05/10/2023 |                                    | 11.31             | 7.34                 | ND                   |                       | 4993.35                           |
|                       | 08/09/2023 |                                    | 11.32             | 6.43                 | ND                   |                       | 4994.26                           |

**Notes:**

\* Groundwater elevation was corrected for product thickness (when present) using the following calculation:  
Groundwater elevation = (TOC Elevation - Measured Depth to Water)+(LNAPL Thickness in Well x LNAPL Relative Density)  
LNAPL relative density was estimated to be approximately 0.75

**Definitions:**

ft. = feet  
AMSL = Above Mean Sea Level  
LNAPL = Light Non-Aqueous Phase Liquid  
ND = Not detected



## **LABORATORY ANALYTICAL DATA**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 16, 2023

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Civitas - Harsch 42-27

Work Order #2308215

Enclosed are the results of analyses for samples received by Summit Scientific on 08/09/23 17:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style. The first name "Jacob" is written with a large, looped 'J' and the last name "Wood" is written with a large 'W' and a trailing 'd'.

Jacob Wood For Paul Shrewsbury

President





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

Project: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| MW01      | 2308215-01    | Water  | 08/09/23 13:21 | 08/09/23 17:10 |
| MW02      | 2308215-02    | Water  | 08/09/23 13:23 | 08/09/23 17:10 |
| MW03      | 2308215-03    | Water  | 08/09/23 13:40 | 08/09/23 17:10 |
| MW04      | 2308215-04    | Water  | 08/09/23 13:44 | 08/09/23 17:10 |
| MW05      | 2308215-05    | Water  | 08/09/23 14:07 | 08/09/23 17:10 |

Summit Scientific

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

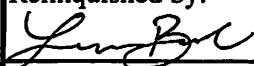
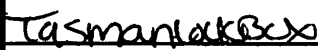

# SUMMIT SCIENTIFIC

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

|                |                           |
|----------------|---------------------------|
| Lab ID         | Page <b>1</b> of <b>1</b> |
| <b>2308215</b> |                           |

|                                      |  |  |  |
|--------------------------------------|--|--|--|
|                                      |  | <b>Send Data To:</b>                                   | <b>Send Invoice To:</b>                    |
| Client: Civitas/Tasman               |  | Project Manager: Sam Vogt/Jacob Evans                  | Company: <b>CIVITAS</b>                    |
| Address: 6855 W. 119th Ave           |  | E-Mail: svgot@tasman-geo.com; jevans@civiresources.com | Project Name/Location: <b>Harsch 42-27</b> |
| City/State/Zip: Broomfield, CO 80020 |  |  | AFE#:                                      |
| Phone: PM (610) 405-9078             |  | Project Name: <b>Harsch 42-27</b>                      | PO/Billing Codes:                          |
| Sampler Name: <b>LB+DH</b>           |  | Project Number:  | Contact:                                   |

|    |                    |              |              |                 | Preservative |      |      |       | Matrix |      |                |       | Analysis Requested |                    |                     |          |         |     | Special Instructions |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-------|--------------------|--------------------|---------------------|----------|---------|-----|----------------------|
| ID | Sample Description | Date Sampled | Time Sampled | # of containers | HCl          | HNO3 | None | Other | Water  | Soil | Air-Canister # | Other | BTEXN              | 1,2,4 + 1,3,5 TMBs | TPH (GRO, DRO, ORO) | Chloride | Sulfate | TDS |                      |
| 1  | MW01               | 8/9/23       | 1321         | 4               | 3            |      | 1    |       | X      |      |                |       | X                  | X                  |                     | X        | X       | X   |                      |
| 2  | MW02               | ↓            | 1323         | ↓               | ↓            |      | ↓    |       | ↓      |      |                |       | ↓                  | ↓                  |                     | ↓        | ↓       | ↓   |                      |
| 3  | MW03               | ↓            | 1340         | ↓               | ↓            |      | ↓    |       | ↓      |      |                |       | ↓                  | ↓                  |                     | ↓        | ↓       | ↓   |                      |
| 4  | MW04               | ↓            | 1344         | ↓               | ↓            |      | ↓    |       | ↓      |      |                |       | ↓                  | ↓                  |                     | ↓        | ↓       | ↓   |                      |
| 5  | MW05               | ↓            | 1407         | ↓               | ↓            |      | ↓    |       | ↓      |      |                |       | ↓                  | ↓                  |                     | ↓        | ↓       | ↓   |                      |
| 6  |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 7  |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 8  |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 9  |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 10 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 11 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 12 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 13 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 14 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |
| 15 |                    |              |              |                 |              |      |      |       |        |      |                |       |                    |                    |                     |          |         |     |                      |

|   |                                 |  |                               |  |             |        |
|---|---------------------------------|--|-------------------------------|--|-------------|--------|
| Relinquished by:  | Date/Time: <b>8/9/23 1511</b>   | Received by: Tasman Lockbox  | Date/Time: <b>8/9/23 1511</b> | TAT Business Days                            | Field DO    | Notes: |
| Relinquished by:  | Date/Time: <b>8/9/23 1710</b>   | Received by:  | Date/Time: <b>8/9/23 1710</b> | Same Day                                     | Field EC    |        |
| Relinquished by:  | Date/Time:                      | Received by:   | Date/Time:                    | 1 Day  | Field ORP   |        |
|   |                                 |  |                               | 2 Days                                       | Field pH    |        |
|   |                                 |  |                               | 3 Days                                       | Field Temp. |        |
|   |                                 |  |                               | Standard <input checked="" type="checkbox"/> | Field Turb. |        |
| Temperature Upon Receipt: <b>10.7</b>   | Corrected Temperature: <b>8</b> | IR gun #: <b>1</b>   | HNO3 lot #:                   |  |             |        |

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2308215Client: ConAsta/Asman Client Project ID: Hanson 42-27Shipped 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) 10.7Thermometer # 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 checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Were all samples received intact? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Was adequate sample volume provided? <sup>(1)</sup>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative.  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | HCl               |
| If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                   |
| If dissolved metals are requested, were samples field filtered?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                   |
| Additional Comments (if any):   |                                     |                                     |                                     |                   |
|   |                                     |                                     |                                     |                   |
|   |                                     |                                     |                                     |                   |

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

AS

Custodian Printed Name

8/9/23

Date/Time

44.6.6





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

Project: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**MW01**  
**2308215-01 (Water)**

**Summit Scientific**

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

Date Sampled: **08/09/23 13:21**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BGH0475 | 08/11/23 | 08/12/23 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/09/23 13:21**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 18.9   | 141 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 18.0   | 135 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 14.0   | 105 %     | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **08/09/23 13:21**

| Analyte  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|          |        | Limit     | Units |          |         |          |          |           |       |
| Chloride | 1330   | 12.0      | mg/L  | 200      | BGH0428 | 08/10/23 | 08/11/23 | EPA 300.0 |       |
| Sulfate  | 10700  | 120       | "     | 400      | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **08/09/23 13:21**

| Analyte                | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|---------|-------|
|                        |        | Limit     | Units |          |         |          |          |         |       |
| Total Dissolved Solids | 12100  | 10.0      | mg/L  | 1        | BGH0430 | 08/10/23 | 08/10/23 | SM2540C |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**MW02**  
**2308215-02 (Water)**

**Summit Scientific**

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

Date Sampled: **08/09/23 13:23**

| Analyte                | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BGH0475 | 08/11/23 | 08/12/23 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/09/23 13:23**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 19.4   | 145 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 16.0   | 120 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 13.8   | 103 %     | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **08/09/23 13:23**

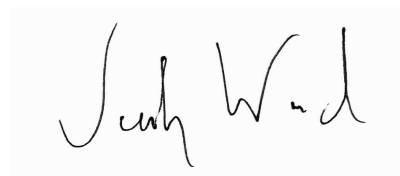
| Analyte  | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|          |              | Limit     |       |          |         |          |          |           |       |
| Chloride | <b>945</b>   | 12.0      | mg/L  | 200      | BGH0428 | 08/10/23 | 08/11/23 | EPA 300.0 |       |
| Sulfate  | <b>11600</b> | 120       | "     | 400      | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **08/09/23 13:23**

| Analyte                | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------------|-----------|-------|----------|---------|----------|----------|---------|-------|
|                        |              | Limit     |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>12700</b> | 10.0      | mg/L  | 1        | BGH0430 | 08/10/23 | 08/10/23 | SM2540C |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**MW03**  
**2308215-03 (Water)**

**Summit Scientific**

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

Date Sampled: **08/09/23 13:40**

| Analyte                | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       | ug/l  | 1        | BGH0475 | 08/11/23 | 08/12/23 | EPA 8260B |       |
| Toluene                | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/09/23 13:40**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 20.2   | 151 %     | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 17.8   | 134 %     | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 13.9   | 104 %     | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **08/09/23 13:40**

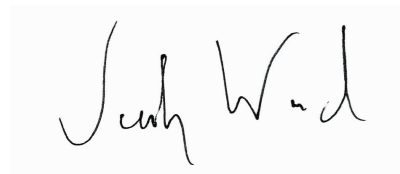
| Analyte  | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|          |              | Limit     |       |          |         |          |          |           |       |
| Chloride | <b>2330</b>  | 12.0      | mg/L  | 200      | BGH0428 | 08/10/23 | 08/11/23 | EPA 300.0 |       |
| Sulfate  | <b>15200</b> | 120       | "     | 400      | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **08/09/23 13:40**

| Analyte                | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------------|-----------|-------|----------|---------|----------|----------|---------|-------|
|                        |              | Limit     |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>17600</b> | 10.0      | mg/L  | 1        | BGH0430 | 08/10/23 | 08/10/23 | SM2540C |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**MW04**  
**2308215-04 (Water)**

**Summit Scientific**

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

Date Sampled: **08/09/23 13:44**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BGH0475 | 08/11/23 | 08/12/23 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/09/23 13:44**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 21.1   | 159 %     |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 18.0   | 135 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 13.4   | 100 %     |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **08/09/23 13:44**

| Analyte  | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |        | Limit     |  |       |          |         |          |          |           |       |
| Chloride | 2790   | 12.0      |  | mg/L  | 200      | BGH0428 | 08/10/23 | 08/11/23 | EPA 300.0 |       |
| Sulfate  | 18000  | 120       |  | "     | 400      | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **08/09/23 13:44**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |        | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | 21000  | 10.0      |  | mg/L  | 1        | BGH0430 | 08/10/23 | 08/10/23 | SM2540C |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**MW05**  
**2308215-05 (Water)**

**Summit Scientific**

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

Date Sampled: **08/09/23 14:07**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BGH0475 | 08/11/23 | 08/12/23 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/09/23 14:07**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 22.4   | 168 %     |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 17.4   | 131 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 14.0   | 105 %     |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **08/09/23 14:07**

| Analyte  | Result       | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|--------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |              | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>2660</b>  | 12.0      |  | mg/L  | 200      | BGH0428 | 08/10/23 | 08/11/23 | EPA 300.0 |       |
| Sulfate  | <b>19300</b> | 120       |  | "     | 400      | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **08/09/23 14:07**

| Analyte                | Result       | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |              | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>22200</b> | 10.0      |  | mg/L  | 1        | BGH0430 | 08/10/23 | 08/10/23 | SM2540C |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

## 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 BGH0475 - EPA 5030 Water MS

##### Blank (BGH0475-BLK1)

Prepared: 08/11/23 Analyzed: 08/12/23

|                                  |      |     |      |      |  |      |        |  |  |  |
|----------------------------------|------|-----|------|------|--|------|--------|--|--|--|
| Benzene                          | ND   | 1.0 | ug/l |      |  |      |        |  |  |  |
| Toluene                          | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Ethylbenzene                     | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Xylenes (total)                  | ND   | 2.0 | "    |      |  |      |        |  |  |  |
| Naphthalene                      | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 17.6 |     | "    | 13.3 |  | 132  | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 17.8 |     | "    | 13.3 |  | 133  | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 13.1 |     | "    | 13.3 |  | 98.0 | 21-167 |  |  |  |

##### LCS (BGH0475-BS1)

Prepared: 08/11/23 Analyzed: 08/12/23

|                                  |      |     |      |      |  |      |        |  |  |  |
|----------------------------------|------|-----|------|------|--|------|--------|--|--|--|
| Benzene                          | 37.3 | 1.0 | ug/l | 50.0 |  | 74.7 | 51-132 |  |  |  |
| Toluene                          | 35.1 | 1.0 | "    | 50.0 |  | 70.2 | 51-138 |  |  |  |
| Ethylbenzene                     | 46.6 | 1.0 | "    | 50.0 |  | 93.2 | 58-146 |  |  |  |
| m,p-Xylene                       | 112  | 2.0 | "    | 100  |  | 112  | 57-144 |  |  |  |
| o-Xylene                         | 68.0 | 1.0 | "    | 50.0 |  | 136  | 53-146 |  |  |  |
| Naphthalene                      | 46.4 | 1.0 | "    | 50.0 |  | 92.8 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 57.6 | 1.0 | "    | 50.0 |  | 115  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 57.5 | 1.0 | "    | 50.0 |  | 115  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 12.8 |     | "    | 13.3 |  | 96.4 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 8.42 |     | "    | 13.3 |  | 63.2 | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 15.4 |     | "    | 13.3 |  | 115  | 21-167 |  |  |  |

##### Matrix Spike (BGH0475-MS1)

Source: 2308193-01

Prepared: 08/11/23 Analyzed: 08/12/23

|                                  |      |     |      |      |      |      |        |  |  |  |
|----------------------------------|------|-----|------|------|------|------|--------|--|--|--|
| Benzene                          | 51.7 | 1.0 | ug/l | 50.0 | ND   | 103  | 34-141 |  |  |  |
| Toluene                          | 49.2 | 1.0 | "    | 50.0 | ND   | 98.3 | 27-151 |  |  |  |
| Ethylbenzene                     | 40.1 | 1.0 | "    | 50.0 | ND   | 80.2 | 29-160 |  |  |  |
| m,p-Xylene                       | 84.1 | 2.0 | "    | 100  | ND   | 84.1 | 20-166 |  |  |  |
| o-Xylene                         | 56.9 | 1.0 | "    | 50.0 | ND   | 114  | 33-159 |  |  |  |
| Naphthalene                      | 50.8 | 1.0 | "    | 50.0 | 9.01 | 83.6 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 58.2 | 1.0 | "    | 50.0 | ND   | 116  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 59.5 | 1.0 | "    | 50.0 | ND   | 119  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 18.6 |     | "    | 13.3 |      | 139  | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 11.8 |     | "    | 13.3 |      | 88.4 | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 13.8 |     | "    | 13.3 |      | 103  | 21-167 |  |  |  |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

## 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 BGH0475 - EPA 5030 Water MS

| Matrix Spike Dup (BGH0475-MSD1)  | Source: 2308193-01 |     |      | Prepared: 08/11/23 Analyzed: 08/12/23 |      |      |        |      |    |       |
|----------------------------------|--------------------|-----|------|---------------------------------------|------|------|--------|------|----|-------|
| Benzene                          | 39.6               | 1.0 | ug/l | 50.0                                  | ND   | 79.1 | 34-141 | 26.6 | 30 |       |
| Toluene                          | 40.2               | 1.0 | "    | 50.0                                  | ND   | 80.5 | 27-151 | 20.0 | 30 |       |
| Ethylbenzene                     | 36.7               | 1.0 | "    | 50.0                                  | ND   | 73.4 | 29-160 | 8.85 | 30 |       |
| m,p-Xylene                       | 81.0               | 2.0 | "    | 100                                   | ND   | 81.0 | 20-166 | 3.73 | 30 |       |
| o-Xylene                         | 51.7               | 1.0 | "    | 50.0                                  | ND   | 103  | 33-159 | 9.61 | 30 |       |
| Naphthalene                      | 48.9               | 1.0 | "    | 50.0                                  | 9.01 | 79.7 | 70-130 | 3.91 | 30 |       |
| 1,2,4-Trimethylbenzene           | 42.6               | 1.0 | "    | 50.0                                  | ND   | 85.2 | 70-130 | 30.9 | 30 | QM-07 |
| 1,3,5-Trimethylbenzene           | 43.8               | 1.0 | "    | 50.0                                  | ND   | 87.6 | 70-130 | 30.4 | 30 | QM-07 |
| Surrogate: 1,2-Dichloroethane-d4 | 19.9               |     | "    | 13.3                                  |      | 149  | 23-173 |      |    |       |
| Surrogate: Toluene-d8            | 12.7               |     | "    | 13.3                                  |      | 95.0 | 20-170 |      |    |       |
| Surrogate: 4-Bromofluorobenzene  | 16.2               |     | "    | 13.3                                  |      | 122  | 21-167 |      |    |       |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

### Anions by EPA Method 300.0 - Quality Control

#### Summit Scientific

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

#### Batch BGH0428 - General Preparation

##### Blank (BGH0428-BLK1)

Prepared: 08/10/23 Analyzed: 08/11/23

|          |    |        |      |
|----------|----|--------|------|
| Chloride | ND | 0.0600 | mg/L |
| Sulfate  | ND | 0.300  | "    |

##### LCS (BGH0428-BS1)

Prepared: 08/10/23 Analyzed: 08/11/23

|          |      |        |      |      |      |        |
|----------|------|--------|------|------|------|--------|
| Chloride | 2.89 | 0.0600 | mg/L | 3.00 | 96.3 | 90-110 |
| Sulfate  | 15.4 | 0.300  | "    | 15.0 | 102  | 90-110 |

##### Duplicate (BGH0428-DUP1)

Source: 2308214-01

Prepared: 08/10/23 Analyzed: 08/11/23

|          |      |      |      |      |      |    |
|----------|------|------|------|------|------|----|
| Chloride | 27.0 | 12.0 | mg/L | 27.8 | 2.92 | 20 |
| Sulfate  | 1680 | 60.0 | "    | 1740 | 3.94 | 20 |

##### Matrix Spike (BGH0428-MS1)

Source: 2308214-01

Prepared: 08/10/23 Analyzed: 08/11/23

|          |      |      |      |      |      |      |        |
|----------|------|------|------|------|------|------|--------|
| Chloride | 614  | 12.0 | mg/L | 600  | 27.8 | 97.7 | 80-120 |
| Sulfate  | 4730 | 60.0 | "    | 3000 | 1740 | 99.5 | 80-120 |

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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

**Total Dissolved Solids by SM2540C - Quality Control**  
**Summit Scientific**

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

**Batch BGH0430 - General Preparation**

**Blank (BGH0430-BLK1)**

Prepared & Analyzed: 08/10/23

Total Dissolved Solids ND 10.0 mg/L

**Duplicate (BGH0430-DUP1)**

Source: 2308214-01

Prepared & Analyzed: 08/10/23

Total Dissolved Solids 2000 10.0 mg/L 2140 6.72 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: Civitas - Harsch 42-27

Project Number: 21354  
Project Manager: Sam Vogt

**Reported:**  
08/16/23 09:22

### 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   |