

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

February 14, 2024

Ben Shoup

Citation Oil & Gas

14077 Cutten Rd

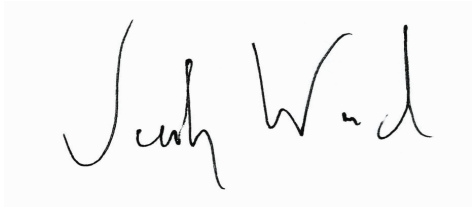
Houston, TX. 77069-2212

RE: Absaroka - Bill 32-26 #5

Work Order # 2401589

Enclosed are the results of analyses for samples received by Summit Scientific on 01/31/24 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS01@5' | 2401589-01 | Soil | 01/31/24 08:45 | 01/31/24 16:30 |
| BKG01@5' | 2401589-02 | Soil | 01/31/24 09:00 | 01/31/24 16:30 |

Summit Scientific

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

SUMMIT SCIENTIFIC

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

| | |
|----------|-------------|
| Lab ID | Page 1 of 1 |
| 24015801 | |

| | | | | | |
|-----------------------------------|--|--|--|--------------------------|--|
| Client: <u>Citation</u> | | Send Data To: | | Send Invoice To: | |
| Address: | | Project Manager: <u>Ben Shoup / Max Dahlgren</u> | | Company: <u>Abstarok</u> | |
| City/State/Zip: | | E-Mail: | | Project Name/Location: | |
| Phone: | | Project Name: <u>B:11 32-26 #5</u> | | AFE#: | |
| Sampler Name: <u>Max Dahlgren</u> | | Project Number: | | PO/Billing Codes: | |
| | | | | 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 | Fall 915 Su-16 | 915-ph, PC, SAR | 915-metals | Bore - this | | | | | |
| 1 | SSO1 @ 5' | 1/31/24 | 845 | 3 | | | X | | | X | | | X | | | | | | | | |
| 2 | BKG01 @ 5' | I | 900 | 1 | | | X | | | X | | | | X | X | X | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|--------------------------------------|--------------------------------|---------------------------------|--------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>1/31/24 1540</u> | Received by: <u>[Signature]</u> | Date/Time: <u>1/31/24 1630</u> | TAT Business Days | Field DO | Notes: |
| Relinquished by: <u>SL</u> | Date/Time: <u>1/31/24 1630</u> | Received by: <u>[Signature]</u> | Date/Time: <u>1/31/24 1630</u> | Same Day | Field EC | |
| | | | | 1 Day | Field ORP | |
| | | | | 2 Days | Field pH | |
| | | | | 3 Days | Field Temp. | |
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>1/31/24 1630</u> | Received by: <u>[Signature]</u> | Date/Time: <u>1/31/24 1630</u> | Standard | X Field Turb. | |
| Temperature Upon Receipt: <u>8.1</u> | | Corrected Temperature: <u>8</u> | | IR gun #: | HNO3 lot #: | |

S₂

Sample Receipt Checklist

S2 Work Order# 2401589Client: Citation Client Project ID: Bill 32-26 #5Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☐ ☒ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 8.1Thermometer # 1

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

AS
Custodian Printed Name

1/31/24
Date/Time



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

SS01@5'
2401589-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Benzene | ND | 0.0020 | 0.000098 | mg/kg | 1 | BHB0127 | 02/05/24 | 02/05/24 | EPA 8260B | |
| Toluene | ND | 0.0050 | 0.00025 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | 0.00021 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | 0.00044 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | 0.00024 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | 0.00024 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | 0.00036 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | | " | " | " | " | " | " | |

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | MDL | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 96.8 % | | 50-150 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | | 50-150 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 102 % | | 50-150 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-----|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| C10-C28 (DRO) | ND | 50 | 4.3 | mg/kg | 1 | BHB0129 | 02/05/24 | 02/05/24 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | 4.3 | " | " | " | " | " | " | |

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | MDL | | | | | | | |
| Surrogate: o-Terphenyl | | 63.3 % | | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

SS01@5'
2401589-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------|--------|-----------|----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | MDL | | | | | | | |
| Acenaphthene | ND | 0.00500 | 0.000620 | mg/kg | 1 | BHB0109 | 02/05/24 | 02/05/24 | EPA 8270D SIM | |
| Anthracene | ND | 0.00500 | 0.000308 | " | " | " | " | " | " | |
| Benzo (a) anthracene | ND | 0.00500 | 0.000363 | " | " | " | " | " | " | |
| Benzo (a) pyrene | ND | 0.00500 | 0.000234 | " | " | " | " | " | " | |
| Benzo (b) fluoranthene | ND | 0.00500 | 0.000433 | " | " | " | " | " | " | |
| Benzo (k) fluoranthene | ND | 0.00500 | 0.000423 | " | " | " | " | " | " | |
| Chrysene | ND | 0.00500 | 0.000237 | " | " | " | " | " | " | |
| Dibenz (a,h) anthracene | ND | 0.00500 | 0.00167 | " | " | " | " | " | " | |
| Fluoranthene | ND | 0.00500 | 0.000373 | " | " | " | " | " | " | |
| Fluorene | ND | 0.00500 | 0.000477 | " | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | 0.00118 | " | " | " | " | " | " | |
| Pyrene | ND | 0.00500 | 0.000317 | " | " | " | " | " | " | |
| 1-Methylnaphthalene | ND | 0.00500 | 0.00185 | " | " | " | " | " | " | |
| 2-Methylnaphthalene | ND | 0.00500 | 0.00189 | " | " | " | " | " | " | |

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|-----|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | MDL | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 45.6 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 44.8 % | | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|---------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Boron | 0.0282 | 2.00 | 0.00690 | mg/L | 1 | BHB0264 | 02/08/24 | 02/09/24 | EPA 6020B | J |

Total Metals by EPA 6020B

Date Sampled: **01/31/24 08:45**

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

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

SS01@5'
2401589-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

| Analyte | Result | Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------|---------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 0.488 | 0.200 | 0.168 | mg/kg dry | 1 | BHB0317 | 02/09/24 | 02/10/24 | EPA 6020B | |
| Barium | 73.2 | 0.400 | 0.316 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | 0.00720 | " | " | " | " | " | " | |
| Copper | 1.25 | 0.400 | 0.0209 | " | " | " | " | " | " | |
| Lead | 1.64 | 0.200 | 0.0550 | " | " | " | " | " | " | |
| Nickel | 1.09 | 0.400 | 0.0610 | " | " | " | " | " | " | |
| Silver | ND | 0.0200 | 0.00267 | " | " | " | " | " | " | |
| Zinc | 3.15 | 0.400 | 0.266 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | 0.175 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: 01/31/24 08:45

| Analyte | Result | Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-------|-------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | 0.040 | mg/kg dry | 1 | BHB0166 | 02/06/24 | 02/06/24 | EPA 7196A | |

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

Date Sampled: 01/31/24 08:45

| Analyte | Result | Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|--------|-----|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 26.2 | 0.0500 | | mg/L dry | 1 | BHB0048 | 02/01/24 | 02/06/24 | EPA 6020B | |
| Magnesium | 5.43 | 0.0500 | | " | " | " | " | " | " | |
| Sodium | 1.21 | 0.0500 | | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: 01/31/24 08:45

| Analyte | Result | Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|---------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.0562 | 0.00100 | | units | 1 | BHB0228 | 02/07/24 | 02/07/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

SS01@5'
2401589-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|-----|-------|----------|---------|----------|----------|-------------|-------|
| | | Limit | MDL | | | | | | | |
| % Solids | 97.3 | | | % | 1 | BHB0186 | 02/06/24 | 02/07/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------|---------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Specific Conductance (EC) | 0.102 | 0.0100 | 0.00100 | mmhos/cm | 1 | BHB0054 | 02/02/24 | 02/02/24 | EPA 120.1 | |

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

Date Sampled: **01/31/24 08:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|-----|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| pH | 8.93 | | | pH Units | 1 | BHB0053 | 02/02/24 | 02/02/24 | EPA 9045D | |

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14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

BKG01@5'
2401589-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------|---------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Boron | 0.0326 | 2.00 | 0.00690 | mg/L | 1 | BHB0264 | 02/08/24 | 02/09/24 | EPA 6020B | J |

Total Metals by EPA 6020B

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------|---------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Arsenic | 0.713 | 0.200 | 0.168 | mg/kg dry | 1 | BHB0317 | 02/09/24 | 02/10/24 | EPA 6020B | |
| Barium | 86.9 | 0.400 | 0.316 | " | " | " | " | " | " | |
| Cadmium | ND | 0.200 | 0.00720 | " | " | " | " | " | " | |
| Copper | 1.30 | 0.400 | 0.0209 | " | " | " | " | " | " | |
| Lead | 1.68 | 0.200 | 0.0550 | " | " | " | " | " | " | |
| Nickel | 1.03 | 0.400 | 0.0610 | " | " | " | " | " | " | |
| Silver | ND | 0.0200 | 0.00267 | " | " | " | " | " | " | |
| Zinc | 3.01 | 0.400 | 0.266 | " | " | " | " | " | " | |
| Selenium | ND | 0.260 | 0.175 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | 0.040 | mg/kg dry | 1 | BHB0166 | 02/06/24 | 02/06/24 | EPA 7196A | |

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

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------|-----|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | MDL | | | | | | | |
| Calcium | 76.4 | 0.0500 | | mg/L dry | 1 | BHB0048 | 02/01/24 | 02/06/24 | EPA 6020B | |
| Magnesium | 5.63 | 0.0500 | | " | " | " | " | " | " | |
| Sodium | 8.69 | 0.0500 | | " | " | " | " | " | " | |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

BKG01@5'
2401589-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|--------------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.259 | 0.00100 | | units | 1 | BHB0228 | 02/07/24 | 02/07/24 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|--------------------|-----|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 97.4 | | | % | 1 | BHB0186 | 02/06/24 | 02/07/24 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|--------------------|---------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.159 | 0.0100 | 0.00100 | mmhos/cm | 1 | BHB0054 | 02/02/24 | 02/02/24 | EPA 120.1 | |

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

Date Sampled: **01/31/24 09:00**

| Analyte | Result | Reporting Limit | MDL | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------------------|-----|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.89 | | | pH Units | 1 | BHB0053 | 02/02/24 | 02/02/24 | EPA 9045D | |

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0127 - EPA 5030 Soil MS

Blank (BHB0127-BLK1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0373 | | " | 0.0400 | | 93.2 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.7 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0423 | | " | 0.0400 | | 106 | 50-150 | | | |

LCS (BHB0127-BS1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.102 | 0.0020 | mg/kg | 0.100 | | 102 | 70-130 | | | |
| Toluene | 0.0948 | 0.0050 | " | 0.100 | | 94.8 | 70-130 | | | |
| Ethylbenzene | 0.0917 | 0.0050 | " | 0.100 | | 91.7 | 70-130 | | | |
| m,p-Xylene | 0.179 | 0.010 | " | 0.200 | | 89.3 | 70-130 | | | |
| o-Xylene | 0.0905 | 0.0050 | " | 0.100 | | 90.5 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0922 | 0.0050 | " | 0.100 | | 92.2 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0894 | 0.0050 | " | 0.100 | | 89.4 | 70-130 | | | |
| Naphthalene | 0.105 | 0.0038 | " | 0.100 | | 105 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0370 | | " | 0.0400 | | 92.4 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0408 | | " | 0.0400 | | 102 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0418 | | " | 0.0400 | | 104 | 50-150 | | | |

Matrix Spike (BHB0127-MS1)

Source: 2401417-01

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|-------|
| Benzene | 0.0906 | 0.0020 | mg/kg | 0.100 | ND | 90.6 | 70-130 | | | |
| Toluene | 0.0821 | 0.0050 | " | 0.100 | ND | 82.1 | 70-130 | | | |
| Ethylbenzene | 0.0760 | 0.0050 | " | 0.100 | ND | 76.0 | 70-130 | | | |
| m,p-Xylene | 0.147 | 0.010 | " | 0.200 | ND | 73.7 | 70-130 | | | |
| o-Xylene | 0.0746 | 0.0050 | " | 0.100 | ND | 74.6 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 0.0700 | 0.0050 | " | 0.100 | ND | 70.0 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 0.0680 | 0.0050 | " | 0.100 | ND | 68.0 | 70-130 | | | QM-07 |
| Naphthalene | 0.0728 | 0.0038 | " | 0.100 | ND | 72.8 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0394 | | " | 0.0400 | | 98.6 | 50-150 | | | |
| Surrogate: Toluene-d8 | 0.0405 | | " | 0.0400 | | 101 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0411 | | " | 0.0400 | | 103 | 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.



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0127 - EPA 5030 Soil MS

| Matrix Spike Dup (BHB0127-MSD1) | | Source: 2401417-01 | | | Prepared & Analyzed: 02/05/24 | | | | | |
|----------------------------------|--------|--------------------|-------|--------|-------------------------------|------|--------|------|----|-------|
| Benzene | 0.0856 | 0.0020 | mg/kg | 0.100 | ND | 85.6 | 70-130 | 5.62 | 30 | |
| Toluene | 0.0765 | 0.0050 | " | 0.100 | ND | 76.5 | 70-130 | 7.07 | 30 | |
| Ethylbenzene | 0.0718 | 0.0050 | " | 0.100 | ND | 71.8 | 70-130 | 5.64 | 30 | |
| m,p-Xylene | 0.138 | 0.010 | " | 0.200 | ND | 68.8 | 70-130 | 6.82 | 30 | QM-07 |
| o-Xylene | 0.0700 | 0.0050 | " | 0.100 | ND | 70.0 | 70-130 | 6.47 | 30 | |
| 1,2,4-Trimethylbenzene | 0.0637 | 0.0050 | " | 0.100 | ND | 63.7 | 70-130 | 9.42 | 30 | QM-07 |
| 1,3,5-Trimethylbenzene | 0.0614 | 0.0050 | " | 0.100 | ND | 61.4 | 70-130 | 10.1 | 30 | QM-07 |
| Naphthalene | 0.0697 | 0.0038 | " | 0.100 | ND | 69.7 | 70-130 | 4.38 | 30 | QM-07 |
| Surrogate: 1,2-Dichloroethane-d4 | | 0.0390 | " | 0.0400 | | 97.4 | 50-150 | | | |
| Surrogate: Toluene-d8 | | 0.0398 | " | 0.0400 | | 99.4 | 50-150 | | | |
| Surrogate: 4-Bromofluorobenzene | | 0.0411 | " | 0.0400 | | 103 | 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.



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0129 - EPA 3550A

Blank (BHB0129-BLK1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | ND | 50 | mg/kg | | | | | | | |
| C28-C36 (ORO) | ND | 50 | " | | | | | | | |
| Surrogate: o-Terphenyl | 10.7 | | " | 12.5 | | 85.9 | 30-150 | | | |

LCS (BHB0129-BS1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|--|------|--------|--|--|--|
| C10-C28 (DRO) | 450 | 50 | mg/kg | 500 | | 90.1 | 70-130 | | | |
| Surrogate: o-Terphenyl | 9.56 | | " | 12.5 | | 76.4 | 30-150 | | | |

Matrix Spike (BHB0129-MS1)

Source: 2401417-01

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|--|--|--|
| C10-C28 (DRO) | 396 | 50 | mg/kg | 500 | 13.6 | 76.4 | 70-130 | | | |
| Surrogate: o-Terphenyl | 5.49 | | " | 12.5 | | 44.0 | 30-150 | | | |

Matrix Spike Dup (BHB0129-MSD1)

Source: 2401417-01

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------|------|----|-------|------|------|------|--------|------|----|--|
| C10-C28 (DRO) | 421 | 50 | mg/kg | 500 | 13.6 | 81.5 | 70-130 | 6.23 | 20 | |
| Surrogate: o-Terphenyl | 5.42 | | " | 12.5 | | 43.4 | 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.



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHB0109 - EPA 5030 Soil MS

Blank (BHB0109-BLK1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0250 | | " | 0.0333 | | 74.9 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0272 | | " | 0.0333 | | 81.5 | 40-150 | | | |

LCS (BHB0109-BS1)

Prepared & Analyzed: 02/05/24

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0257 | 0.00500 | mg/kg | 0.0333 | | 77.1 | 31-137 | | | |
| Anthracene | 0.0260 | 0.00500 | " | 0.0333 | | 78.0 | 30-120 | | | |
| Benzo (a) anthracene | 0.0141 | 0.00500 | " | 0.0333 | | 42.3 | 30-120 | | | |
| Benzo (a) pyrene | 0.0213 | 0.00500 | " | 0.0333 | | 63.8 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0189 | 0.00500 | " | 0.0333 | | 56.6 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0243 | 0.00500 | " | 0.0333 | | 73.0 | 30-120 | | | |
| Chrysene | 0.0267 | 0.00500 | " | 0.0333 | | 80.0 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0190 | 0.00500 | " | 0.0333 | | 57.1 | 30-120 | | | |
| Fluoranthene | 0.0256 | 0.00500 | " | 0.0333 | | 76.7 | 30-120 | | | |
| Fluorene | 0.0254 | 0.00500 | " | 0.0333 | | 76.3 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0217 | 0.00500 | " | 0.0333 | | 65.1 | 30-120 | | | |
| Pyrene | 0.0275 | 0.00500 | " | 0.0333 | | 82.5 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0316 | 0.00500 | " | 0.0333 | | 94.8 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0228 | 0.00500 | " | 0.0333 | | 68.5 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0319 | | " | 0.0333 | | 95.6 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0260 | | " | 0.0333 | | 78.1 | 40-150 | | | |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0109 - EPA 5030 Soil MS

Matrix Spike (BHB0109-MS1)

Source: 2401589-01

Prepared & Analyzed: 02/05/24

| | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|--|--|
| Acenaphthene | 0.0190 | 0.00500 | mg/kg | 0.0333 | ND | 57.0 | 31-137 | | |
| Anthracene | 0.0192 | 0.00500 | " | 0.0333 | ND | 57.7 | 30-120 | | |
| Benzo (a) anthracene | 0.0129 | 0.00500 | " | 0.0333 | ND | 38.7 | 30-120 | | |
| Benzo (a) pyrene | 0.0178 | 0.00500 | " | 0.0333 | ND | 53.3 | 30-120 | | |
| Benzo (b) fluoranthene | 0.0144 | 0.00500 | " | 0.0333 | ND | 43.1 | 30-120 | | |
| Benzo (k) fluoranthene | 0.0186 | 0.00500 | " | 0.0333 | ND | 55.8 | 30-120 | | |
| Chrysene | 0.0197 | 0.00500 | " | 0.0333 | ND | 59.2 | 30-120 | | |
| Dibenz (a,h) anthracene | 0.0162 | 0.00500 | " | 0.0333 | ND | 48.7 | 30-120 | | |
| Fluoranthene | 0.0205 | 0.00500 | " | 0.0333 | ND | 61.6 | 30-120 | | |
| Fluorene | 0.0196 | 0.00500 | " | 0.0333 | ND | 58.7 | 30-120 | | |
| Indeno (1,2,3-cd) pyrene | 0.0166 | 0.00500 | " | 0.0333 | ND | 49.7 | 30-120 | | |
| Pyrene | 0.0214 | 0.00500 | " | 0.0333 | ND | 64.1 | 35-142 | | |
| 1-Methylnaphthalene | 0.0212 | 0.00500 | " | 0.0333 | ND | 63.7 | 15-130 | | |
| 2-Methylnaphthalene | 0.0157 | 0.00500 | " | 0.0333 | ND | 47.0 | 15-130 | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0243 | | " | 0.0333 | | 73.0 | 40-150 | | |
| Surrogate: Fluoranthene-d10 | 0.0217 | | " | 0.0333 | | 65.2 | 40-150 | | |

Matrix Spike Dup (BHB0109-MSD1)

Source: 2401589-01

Prepared & Analyzed: 02/05/24

| | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|-------|----|
| Acenaphthene | 0.0178 | 0.00500 | mg/kg | 0.0333 | ND | 53.5 | 31-137 | 6.25 | 30 |
| Anthracene | 0.0186 | 0.00500 | " | 0.0333 | ND | 55.9 | 30-120 | 3.12 | 30 |
| Benzo (a) anthracene | 0.0133 | 0.00500 | " | 0.0333 | ND | 39.9 | 30-120 | 2.98 | 30 |
| Benzo (a) pyrene | 0.0179 | 0.00500 | " | 0.0333 | ND | 53.6 | 30-120 | 0.496 | 30 |
| Benzo (b) fluoranthene | 0.0145 | 0.00500 | " | 0.0333 | ND | 43.5 | 30-120 | 0.959 | 30 |
| Benzo (k) fluoranthene | 0.0180 | 0.00500 | " | 0.0333 | ND | 54.1 | 30-120 | 3.14 | 30 |
| Chrysene | 0.0186 | 0.00500 | " | 0.0333 | ND | 55.8 | 30-120 | 5.96 | 30 |
| Dibenz (a,h) anthracene | 0.0162 | 0.00500 | " | 0.0333 | ND | 48.5 | 30-120 | 0.572 | 30 |
| Fluoranthene | 0.0197 | 0.00500 | " | 0.0333 | ND | 59.0 | 30-120 | 4.23 | 30 |
| Fluorene | 0.0187 | 0.00500 | " | 0.0333 | ND | 56.1 | 30-120 | 4.43 | 30 |
| Indeno (1,2,3-cd) pyrene | 0.0164 | 0.00500 | " | 0.0333 | ND | 49.3 | 30-120 | 0.818 | 30 |
| Pyrene | 0.0195 | 0.00500 | " | 0.0333 | ND | 58.6 | 35-142 | 9.00 | 30 |
| 1-Methylnaphthalene | 0.0174 | 0.00500 | " | 0.0333 | ND | 52.2 | 15-130 | 19.8 | 50 |
| 2-Methylnaphthalene | 0.0139 | 0.00500 | " | 0.0333 | ND | 41.6 | 15-130 | 12.2 | 50 |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0186 | | " | 0.0333 | | 55.8 | 40-150 | | |
| Surrogate: Fluoranthene-d10 | 0.0207 | | " | 0.0333 | | 62.0 | 40-150 | | |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0264 - EPA 3050B

Blank (BHB0264-BLK1)

Prepared: 02/08/24 Analyzed: 02/09/24

Boron ND 2.00 mg/L

LCS (BHB0264-BS1)

Prepared: 02/08/24 Analyzed: 02/09/24

Boron 4.52 2.00 mg/L 5.00 90.5 80-120

Duplicate (BHB0264-DUP1)

Source: 2401569-01

Prepared: 02/08/24 Analyzed: 02/09/24

Boron 0.0602 2.00 mg/L 0.0630 4.61 20 J

Matrix Spike (BHB0264-MS1)

Source: 2401569-01

Prepared: 02/08/24 Analyzed: 02/09/24

Boron 4.88 2.00 mg/L 5.00 0.0630 96.4 75-125

Matrix Spike Dup (BHB0264-MSD1)

Source: 2401569-01

Prepared: 02/08/24 Analyzed: 02/09/24

Boron 4.96 2.00 mg/L 5.00 0.0630 97.9 75-125 1.52 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.



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0317 - EPA 3050B

Blank (BHB0317-BLK1)

Prepared: 02/09/24 Analyzed: 02/10/24

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

LCS (BHB0317-BS1)

Prepared: 02/09/24 Analyzed: 02/10/24

| | | | | | | |
|----------|------|--------|-----------|------|------|--------|
| Arsenic | 40.5 | 0.200 | mg/kg wet | 40.0 | 101 | 80-120 |
| Barium | 36.7 | 0.400 | " | 40.0 | 91.7 | 80-120 |
| Cadmium | 1.73 | 0.200 | " | 2.00 | 86.5 | 80-120 |
| Copper | 41.9 | 0.400 | " | 40.0 | 105 | 80-120 |
| Lead | 17.5 | 0.200 | " | 20.0 | 87.3 | 80-120 |
| Nickel | 41.0 | 0.400 | " | 40.0 | 102 | 80-120 |
| Silver | 1.74 | 0.0200 | " | 2.00 | 87.0 | 80-120 |
| Zinc | 39.7 | 0.400 | " | 40.0 | 99.1 | 80-120 |
| Selenium | 4.14 | 0.260 | " | 4.00 | 103 | 80-120 |

Duplicate (BHB0317-DUP1)

Source: 2401582-01

Prepared: 02/09/24 Analyzed: 02/10/24

| | | | | | | |
|----------|--------|--------|-----------|--------|------|----|
| Arsenic | 0.737 | 0.200 | mg/kg dry | 0.729 | 1.06 | 20 |
| Barium | 60.9 | 0.400 | " | 58.9 | 3.19 | 20 |
| Cadmium | 0.0735 | 0.200 | " | 0.0692 | 6.06 | 20 |
| Copper | 3.16 | 0.400 | " | 3.24 | 2.36 | 20 |
| Lead | 5.24 | 0.200 | " | 5.13 | 1.95 | 20 |
| Nickel | 3.08 | 0.400 | " | 3.12 | 1.34 | 20 |
| Silver | 0.0320 | 0.0200 | " | 0.0324 | 1.34 | 20 |
| Zinc | 9.96 | 0.400 | " | 10.1 | 1.80 | 20 |
| Selenium | ND | 0.260 | " | ND | | 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.



Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0317 - EPA 3050B

| Matrix Spike (BHB0317-MS1) | | Source: 2401582-01 | | | Prepared: 02/09/24 Analyzed: 02/10/24 | | | | | |
|----------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|--|--|-------|
| Arsenic | 16.0 | 0.200 | mg/kg dry | 43.2 | 0.729 | 35.3 | 75-125 | | | QM-07 |
| Barium | 98.0 | 0.400 | " | 43.2 | 58.9 | 90.4 | 75-125 | | | |
| Cadmium | 2.03 | 0.200 | " | 2.16 | 0.0692 | 90.8 | 75-125 | | | |
| Copper | 18.8 | 0.400 | " | 43.2 | 3.24 | 35.9 | 75-125 | | | QM-07 |
| Lead | 23.7 | 0.200 | " | 21.6 | 5.13 | 85.7 | 75-125 | | | |
| Nickel | 18.8 | 0.400 | " | 43.2 | 3.12 | 36.3 | 75-125 | | | QM-07 |
| Silver | 1.97 | 0.0200 | " | 2.16 | 0.0324 | 89.5 | 75-125 | | | |
| Zinc | 25.6 | 0.400 | " | 43.2 | 10.1 | 35.8 | 75-125 | | | QM-07 |
| Selenium | 4.53 | 0.260 | " | 4.32 | ND | 105 | 75-125 | | | |

| Matrix Spike Dup (BHB0317-MSD1) | | Source: 2401582-01 | | | Prepared: 02/09/24 Analyzed: 02/10/24 | | | | | |
|---------------------------------|------|--------------------|-----------|------|---------------------------------------|------|--------|-------|----|-------|
| Arsenic | 16.1 | 0.200 | mg/kg dry | 43.2 | 0.729 | 35.7 | 75-125 | 1.05 | 25 | QM-07 |
| Barium | 97.0 | 0.400 | " | 43.2 | 58.9 | 88.0 | 75-125 | 1.05 | 25 | |
| Cadmium | 2.02 | 0.200 | " | 2.16 | 0.0692 | 90.4 | 75-125 | 0.363 | 25 | |
| Copper | 19.1 | 0.400 | " | 43.2 | 3.24 | 36.6 | 75-125 | 1.58 | 25 | QM-07 |
| Lead | 23.2 | 0.200 | " | 21.6 | 5.13 | 83.5 | 75-125 | 2.09 | 25 | |
| Nickel | 19.1 | 0.400 | " | 43.2 | 3.12 | 37.0 | 75-125 | 1.53 | 25 | QM-07 |
| Silver | 1.94 | 0.0200 | " | 2.16 | 0.0324 | 88.3 | 75-125 | 1.39 | 25 | |
| Zinc | 25.7 | 0.400 | " | 43.2 | 10.1 | 35.9 | 75-125 | 0.211 | 25 | QM-07 |
| Selenium | 4.78 | 0.260 | " | 4.32 | ND | 110 | 75-125 | 5.36 | 25 | |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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 BHB0166 - 3060A Mod

Blank (BHB0166-BLK1)

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHB0166-BS1)

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent 23.0 0.30 mg/kg wet 25.0 92.0 80-120

Duplicate (BHB0166-DUP1)

Source: 2311627-01

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHB0166-MS1)

Source: 2311627-01

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent 24.8 0.30 mg/kg dry 27.0 ND 91.8 75-125

Matrix Spike Dup (BHB0166-MSD1)

Source: 2311627-01

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent 24.6 0.30 mg/kg dry 27.0 ND 91.2 75-125 0.656 20

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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

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

Batch BHB0048 - General Preparation

Blank (BHB0048-BLK1)

Prepared: 02/01/24 Analyzed: 02/06/24

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

LCS (BHB0048-BS1)

Prepared: 02/01/24 Analyzed: 02/06/24

| | | | | | | |
|-----------|------|--------|----------|------|-----|--------|
| Calcium | 5.68 | 0.0500 | mg/L wet | 5.00 | 114 | 70-130 |
| Magnesium | 5.14 | 0.0500 | " | 5.00 | 103 | 70-130 |
| Sodium | 5.14 | 0.0500 | " | 5.00 | 103 | 70-130 |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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

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

Batch BHB0186 - General Preparation

| Duplicate (BHB0186-DUP1) | | Source: 2401553-01 | | Prepared: 02/06/24 Analyzed: 02/07/24 | |
|--------------------------|------|--------------------|---|---------------------------------------|----------|
| % Solids | 93.3 | | % | 93.7 | 0.477 20 |

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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

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

Batch BHB0054 - General Preparation

Blank (BHB0054-BLK1)

Prepared & Analyzed: 02/02/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHB0054-BS1)

Prepared & Analyzed: 02/02/24

Specific Conductance (EC) 0.148 0.0100 mmhos/cm 0.150 98.6 95-105

Duplicate (BHB0054-DUP1)

Source: 2401589-01

Prepared & Analyzed: 02/02/24

Specific Conductance (EC) 0.102 0.0100 mmhos/cm 0.102 0.687 20

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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

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

Batch BHB0053 - General Preparation

LCS (BHB0053-BS1)

Prepared & Analyzed: 02/02/24

| | | | | | |
|----|------|----------|------|------|--------|
| pH | 9.12 | pH Units | 9.18 | 99.3 | 95-105 |
|----|------|----------|------|------|--------|

Duplicate (BHB0053-DUP1)

Source: 2401589-01

Prepared & Analyzed: 02/02/24

| | | | | | |
|----|------|----------|------|------|----|
| pH | 8.78 | pH Units | 8.93 | 1.69 | 20 |
|----|------|----------|------|------|----|

Summit Scientific

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Citation Oil & Gas
14077 Cutten Rd
Houston TX., 77069-2212

Project: Absaroka - Bill 32-26 #5

Project Number: [none]
Project Manager: Ben Shoup

Reported:
02/14/24 10:02

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. |
| J | Detected but below the Reporting Limit; therefore, result is an estimated concentration |
| 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 |