

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 11, 2023

Brian Humphrey

CGRS Inc.

1301 Academy Ct.

Fort Collins, CO 80524

RE: Chaco Energy - Kindt

Work Order #2308703

Enclosed are the results of analyses for samples received by Summit Scientific on 08/31/23 15:20. 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.

Jacob Wood For Paul Shrewsbury

President



CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| Tank01@3' | 2308703-01    | Soil   | 08/31/23 10:40 | 08/31/23 15:20 |
| Sep01@3'  | 2308703-02    | Soil   | 08/31/23 10:45 | 08/31/23 15:20 |
| BKG01@2'  | 2308703-03    | Soil   | 08/31/23 11:15 | 08/31/23 15:20 |
| WH01@2'   | 2308703-04    | Soil   | 08/31/23 11:15 | 08/31/23 15:20 |
| BKG02@2'  | 2308703-05    | Soil   | 08/31/23 11:38 | 08/31/23 15:20 |
| PWC01@2'  | 2308703-06    | Soil   | 08/31/23 11:40 | 08/31/23 15:20 |
| PWN01@1'  | 2308703-07    | Soil   | 08/31/23 12:05 | 08/31/23 15:20 |
| PWW01@1'  | 2308703-08    | Soil   | 08/31/23 12:20 | 08/31/23 15:20 |
| PWE01@2'  | 2308703-09    | Soil   | 08/31/23 12:39 | 08/31/23 15:20 |
| PWS01@3'  | 2308703-10    | Soil   | 08/31/23 12:54 | 08/31/23 15:20 |
| BKG03@2'  | 2308703-11    | Soil   | 08/31/23 13:00 | 08/31/23 15:20 |

Summit Scientific

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# SUMMIT SCIENTIFIC

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

|         |             |
|---------|-------------|
| Lab ID  | Page 1 of 1 |
| 2308703 |             |

|   |  |  |  |                                     |  |
|---|--|--|--|-------------------------------------|--|
| Client: <u>Chaco Energy</u>                   |  | Send Data To:                          |  | Send Invoice To:                    |  |
| Address:                                      |  | Project Manager: <u>Brian Humphrey</u> |  | Company: <u>GGRS</u>                |  |
| City/State/Zip:                               |  | E-Mail: <u>bhumphrey@GGRS.com</u>      |  | Project Name/Location: <u>Kindt</u> |  |
| Phone:  |  | Project Name: <u>Kindt</u>             |  | AFE#:                               |  |
| Sampler Name: <u>L. Glazier + B. Humphrey</u> |  | Project Number:                        |  | PO/Billing Codes:                   |  |
|   |  |  |  | Contact: <u>B. Humphrey</u>         |  |

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative |      |      |       | Matrix |      | Air-Canister # | Analysis Requested    |                  |                    |  | Special Instructions  |
|----|--------------------|--------------|--------------|-----------------|--------------|------|------|-------|--------|------|----------------|-----------------------|------------------|--------------------|--|---|
|    |                    |              |              |                 | HCl          | HNO3 | None | Other | Water  | Soil |                | ECMC Full Table 915-1 | Table 915-1 Soil | Table 915-1 metals |  |   |
| 1  | Tank 01 @ 3'       | 8/31/23      | 1040         | 2               |              |      | X    |       |        | X    |                | X                     |                  |                    |  | BKG 01-03<br>Sample for Table 915-1<br>Soil Sustainability +<br>metals only |
| 2  | Sep 01 @ 3'        |              | 1045         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 3  | BKG 01 @ 2'        |              | 1115         |                 |              |      |      |       |        |      |                |                       | X                | X                  |  |   |
| 4  | Wt 01 @ 2'         |              | 1115         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 5  | BKG 02 @ 2'        |              | 1138         |                 |              |      |      |       |        |      |                |                       | X                | X                  |  |   |
| 6  | PWC 01 @ 2'        |              | 1140         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 7  | PWN 01 @ 1'        |              | 1205         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 8  | PWN 01 @ 1'        |              | 1220         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 9  | PWE 01 @ 2'        |              | 1239         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 10 | PJS 01 @ 3'        |              | 1254         |                 |              |      |      |       |        |      |                | X                     |                  |                    |  |   |
| 11 | BKG 03 @ 2'        |              | 1300         |                 |              |      |      |       |        |      |                |                       | X                | X                  |  |   |
| 12 |                    |              |              |                 |              |      |      |       |        |      |                |                       |                  |                    |  |   |
| 13 |                    |              |              |                 |              |      |      |       |        |      |                |                       |                  |                    |  |   |
| 14 |                    |              |              |                 |              |      |      |       |        |      |                |                       |                  |                    |  |   |
| 15 |                    |              |              |                 |              |      |      |       |        |      |                |                       |                  |                    |  |   |

|                                       |                                |                                 |                                 |                   |               |        |
|---------------------------------------|--------------------------------|---------------------------------|---------------------------------|-------------------|---------------|--------|
| Relinquished by: <u>[Signature]</u>   | Date/Time: <u>8/31/23 1520</u> | Received by: <u>[Signature]</u> | Date/Time: <u>8/31/23 15:20</u> | TAT Business Days | Field DO      | Notes: |
| Relinquished by:                      | Date/Time:                     | Received by:                    | Date/Time:                      | Same Day          | Field EC      |        |
|                                       |                                |                                 |                                 | 1 Day             | Field ORP     |        |
|                                       |                                |                                 |                                 | 2 Days            | Field pH      |        |
|                                       |                                |                                 |                                 | 3 Days            | Field Temp.   |        |
| Relinquished by:                      | Date/Time:                     | Received by:                    | Date/Time:                      | Standard          | X Field Turb. |        |
| Temperature Upon Receipt: <u>13.1</u> | Corrected Temperature          | IR gun #:                       |                                 | HNO3 lot #:       |               |        |

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2308703Client: Chaco Energy Client Project ID: Kind +Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 13.1 Thermometer # 2

|   | Yes                                 | No                                  | N/A                                 | Comments (if any)                  |
|---|-------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|
| If samples require cooling, is the temperature < 6°C? <sup>(1)</sup><br><b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | on ice                             |
| If custody seals are present, are they intact? <sup>(1)</sup>   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| Are samples due within 48 hours present?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                    |
| Are water samples with short hold times present?<br>Note the short hold analysis in the comments column<br>- pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>  | <input 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 type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | PWC01@2' on COC = PWC01@1' on jars |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative.  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| If dissolved metals are requested, were samples field filtered?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                    |
| Additional Comments (if any):<br><br>PWE01@2' on COC = PWE@2' on jars   |                                     |                                     |                                     |                                    |
| <sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.   |                                     |                                     |                                     |                                    |

Custodian Printed Name

Date/Time

8/31/23 15:20



CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Tank01@3'**  
**2308703-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 10:40**

| Analyte                     | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     | Units |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 10:40**

| Analyte                          | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0355 | 88.8 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0401 | 100 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0404 | 101 %     | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 10:40**

| Analyte       | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     | Units |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 10:40**

| Analyte                | Result | Reporting |        | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     | Units  |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 15.0   | 120 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Tank01@3'**  
**2308703-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 10:40**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/06/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 10:40**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0154 | 46.1 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0190 | 57.0 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 10:40**

| Analyte      | Result       | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.189</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 10:40**

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Tank01@3'**  
**2308703-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.910  | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 299    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.12   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 7.10   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.43   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0289 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.68   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 10:40**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 10:40**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 56.0   | 0.0573          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| Magnesium | 14.9   | 0.0573          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 3.61   | 0.0573          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 10:40**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.111  | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Tank01@3'**  
**2308703-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 10:40**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 87.3   |                 | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 10:40**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.416  | 0.0100          | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 10:40**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.08   |                 | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Sep01@3'**  
**2308703-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 10:45**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 10:45**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0247 | 61.6 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0411 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0376 | 94.1 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 10:45**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 10:45**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 15.4   | 123 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Sep01@3'**  
**2308703-02 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **08/31/23 10:45**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 10:45**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0185 | 55.4 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0222 | 66.7 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 10:45**


| Analyte      | Result      | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>3.53</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

#### Total Metals by EPA 6020B

Date Sampled: **08/31/23 10:45**

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Sep01@3'**  
**2308703-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.793  | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 187    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.07   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 6.85   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.30   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0227 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.59   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 10:45**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 10:45**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 58.9   | 0.0567          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| Magnesium | 10.7   | 0.0567          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 118    | 0.0567          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 10:45**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.71   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**Sep01@3'**  
**2308703-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 10:45**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 88.2   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 10:45**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.880  | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 10:45**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.58   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG01@2'**  
**2308703-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:15**

| Analyte      | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|              |              | Limit     |       |          |         |          |          |           |       |
| <b>Boron</b> | <b>0.310</b> | 0.0100    | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 11:15**

| Analyte        | Result        | Reporting | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|---------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|                |               | Limit     |           |          |         |          |          |           |       |
| <b>Arsenic</b> | <b>0.832</b>  | 0.200     | mg/kg dry | 1        | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |       |
| <b>Barium</b>  | <b>243</b>    | 0.400     | "         | "        | "       | "        | "        | "         |       |
| Cadmium        | ND            | 0.200     | "         | "        | "       | "        | "        | "         |       |
| <b>Copper</b>  | <b>1.35</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| <b>Lead</b>    | <b>6.84</b>   | 0.200     | "         | "        | "       | "        | "        | "         |       |
| <b>Nickel</b>  | <b>1.57</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| <b>Silver</b>  | <b>0.0406</b> | 0.0200    | "         | "        | "       | "        | "        | "         |       |
| <b>Zinc</b>    | <b>4.74</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| Selenium       | ND            | 0.260     | "         | "        | "       | "        | "        | "         |       |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 11:15**

| Analyte              | Result | Reporting | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|                      |        | Limit     |           |          |         |          |          |           |       |
| Chromium, Hexavalent | ND     | 0.30      | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte          | Result      | Reporting | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                  |             | Limit     |          |          |         |          |          |           |       |
| <b>Calcium</b>   | <b>206</b>  | 0.0558    | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| <b>Magnesium</b> | <b>15.1</b> | 0.0558    | "        | "        | "       | "        | "        | "         |       |
| <b>Sodium</b>    | <b>16.5</b> | 0.0558    | "        | "        | "       | "        | "        | "         |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG01@2'**  
**2308703-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/31/23 11:15**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.299  | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 89.6   |                 | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.338  | 0.0100          | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.13   |                 | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**WH01@2'**  
**2308703-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:15**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 11:15**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0342 | 85.5 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0394 | 98.5 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0362 | 90.6 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 11:15**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 11:15**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 15.3   | 122 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**WH01@2'**  
**2308703-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 11:15**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 11:15**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0389 | 117 %           | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0447 | 134 %           | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte      | Result       | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.210</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 11:15**

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**WH01@2'**  
**2308703-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 1.08   | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 349    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.59   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 15.4   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.83   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0346 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 9.27   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 11:15**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 102    | 0.0609          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| Magnesium | 26.3   | 0.0609          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 38.4   | 0.0609          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 11:15**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.877  | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**WH01@2'**  
**2308703-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:15**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 82.1   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.867  | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 11:15**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.71   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG02@2'**  
**2308703-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:38**

| Analyte      | Result       | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|              |              | Limit     |  |       |          |         |          |          |           |       |
| <b>Boron</b> | <b>0.227</b> | 0.0100    |  | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 11:38**

| Analyte        | Result        | Reporting |  | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|---------------|-----------|--|-----------|----------|---------|----------|----------|-----------|-------|
|                |               | Limit     |  |           |          |         |          |          |           |       |
| <b>Arsenic</b> | <b>0.856</b>  | 0.200     |  | mg/kg dry | 1        | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |       |
| <b>Barium</b>  | <b>413</b>    | 0.400     |  | "         | "        | "       | "        | "        | "         |       |
| Cadmium        | ND            | 0.200     |  | "         | "        | "       | "        | "        | "         |       |
| <b>Copper</b>  | <b>0.967</b>  | 0.400     |  | "         | "        | "       | "        | "        | "         |       |
| <b>Lead</b>    | <b>6.23</b>   | 0.200     |  | "         | "        | "       | "        | "        | "         |       |
| <b>Nickel</b>  | <b>1.32</b>   | 0.400     |  | "         | "        | "       | "        | "        | "         |       |
| <b>Silver</b>  | <b>0.0239</b> | 0.0200    |  | "         | "        | "       | "        | "        | "         |       |
| <b>Zinc</b>    | <b>4.04</b>   | 0.400     |  | "         | "        | "       | "        | "        | "         |       |
| Selenium       | ND            | 0.260     |  | "         | "        | "       | "        | "        | "         |       |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 11:38**

| Analyte              | Result | Reporting |  | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------|--|-----------|----------|---------|----------|----------|-----------|-------|
|                      |        | Limit     |  |           |          |         |          |          |           |       |
| Chromium, Hexavalent | ND     | 0.30      |  | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 11:38**

| Analyte          | Result      | Reporting |  | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------|-------------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
|                  |             | Limit     |  |          |          |         |          |          |           |       |
| <b>Calcium</b>   | <b>73.8</b> | 0.0543    |  | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| <b>Magnesium</b> | <b>10.4</b> | 0.0543    |  | "        | "        | "       | "        | "        | "         |       |
| <b>Sodium</b>    | <b>7.56</b> | 0.0543    |  | "        | "        | "       | "        | "        | "         |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG02@2'**  
**2308703-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/31/23 11:38**

| Analyte                 | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 0.218  | 0.00100            | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:38**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 92.0   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:38**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.265  | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 11:38**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.08   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWC01@2'**  
**2308703-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:40**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 11:40**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0316 | 79.0 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0410 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0386 | 96.4 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 11:40**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 11:40**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 15.3   | 123 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWC01@2'**  
**2308703-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 11:40**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 11:40**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0205 | 61.4 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0224 | 67.1 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 11:40**

| Analyte      | Result      | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>25.6</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 11:40**

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWC01@2'**  
**2308703-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |       |        |           |   |         |          |          |           |
|----------|-------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.604 | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 234   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND    | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.23  | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 7.23  | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.26  | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | ND    | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.49  | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND    | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 11:40**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 11:40**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 2000   | 0.0575          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| Magnesium | 51.3   | 0.0575          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 915    | 0.0575          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 11:40**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 5.52   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWC01@2'**  
**2308703-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 11:40**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 87.0   |                 | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 11:40**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 2.66   | 0.0100          | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 11:40**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 9.88   |                 | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWN01@1'**  
**2308703-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:05**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:05**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0313 | 78.3 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0410 | 103 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0340 | 85.1 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 12:05**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:05**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 11.5   | 91.6 %    | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWN01@1'**  
**2308703-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 12:05**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 12:05**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0164 | 49.2 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0176 | 52.8 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 12:05**

| Analyte      | Result      | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>3.26</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 12:05**

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWN01@1'**  
**2308703-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.510  | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 101    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.18   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 6.33   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.26   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0246 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.56   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 12:05**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 12:05**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 310    | 0.0531          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/05/23 | EPA 6020B |       |
| Magnesium | 43.4   | 0.0531          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 720    | 0.0531          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 12:05**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 10.1   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWN01@1'**  
**2308703-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:05**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 94.2   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 12:05**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 5.12   | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 12:05**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.29   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWW01@1'**  
**2308703-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:20**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:20**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0389 | 97.2 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0407 | 102 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0365 | 91.3 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 12:20**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:20**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 14.6   | 116 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWW01@1'**  
**2308703-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 12:20**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 12:20**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0186 | 55.7 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0235 | 70.4 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 12:20**


| Analyte      | Result       | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.618</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 12:20**

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWW01@1'**  
**2308703-08 (Soil)**

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**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.571  | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 110    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.08   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 6.61   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.37   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0272 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.53   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 12:20**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 12:20**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 425    | 0.0549          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/06/23 | EPA 6020B |       |
| Magnesium | 120    | 0.0549          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 431    | 0.0549          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 12:20**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 4.76   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWW01@1'**  
**2308703-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:20**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 91.1   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 12:20**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 4.93   | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 12:20**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.35   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWE01@2'**  
**2308703-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:39**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:39**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0337 | 84.2 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0420 | 105 %     | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0381 | 95.2 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 12:39**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:39**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 15.2   | 121 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWE01@2'**  
**2308703-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 12:39**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 12:39**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0197 | 59.1 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0192 | 57.5 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 12:39**

| Analyte      | Result       | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.562</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 12:39**

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWE01@2'**  
**2308703-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |       |        |           |   |         |          |          |           |
|----------|-------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.559 | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 140   | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND    | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.05  | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 5.48  | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.14  | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | ND    | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.06  | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND    | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 12:39**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 12:39**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 479    | 0.0537          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/06/23 | EPA 6020B |       |
| Magnesium | 76.4   | 0.0537          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 275    | 0.0537          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 12:39**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 3.08   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWE01@2'**  
**2308703-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:39**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 93.1   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 12:39**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 4.59   | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 12:39**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.05   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWS01@3'**  
**2308703-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:54**

| Analyte                     | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|                             |        | Limit     |       |          |         |          |          |           |       |
| Benzene                     | ND     | 0.0020    | mg/kg | 1        | BGI0016 | 09/01/23 | 09/02/23 | EPA 8260B |       |
| Toluene                     | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene                | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)             | ND     | 0.010     | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene      | ND     | 0.0050    | "     | "        | "       | "        | "        | "         |       |
| Naphthalene                 | ND     | 0.0038    | "     | "        | "       | "        | "        | "         |       |
| Gasoline Range Hydrocarbons | ND     | 0.50      | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:54**

| Analyte                          | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0264 | 66.0 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            | 0.0393 | 98.3 %    | 50-150 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  | 0.0367 | 91.8 %    | 50-150 |          | "     | "        | "        | "      |       |

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **08/31/23 12:54**

| Analyte       | Result | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|               |        | Limit     |       |          |         |          |          |           |       |
| C10-C28 (DRO) | ND     | 50        | mg/kg | 1        | BGI0019 | 09/01/23 | 09/01/23 | EPA 8015M |       |
| C28-C36 (ORO) | ND     | 50        | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **08/31/23 12:54**

| Analyte                | Result | Reporting | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
|                        |        | Limit     |        |          |       |          |          |        |       |
| Surrogate: o-Terphenyl | 14.9   | 119 %     | 30-150 |          | "     | "        | "        | "      |       |

**PAH by EPA Method 8270D SIM**

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWS01@3'**  
**2308703-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **08/31/23 12:54**

| Analyte                  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method        | Notes |
|--------------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene             | ND     | 0.00500         | mg/kg | 1        | BGI0112 | 09/06/23 | 09/07/23 | EPA 8270D SIM |       |
| Anthracene               | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) anthracene     | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (a) pyrene         | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (b) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Benzo (k) fluoranthene   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Chrysene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Dibenz (a,h) anthracene  | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluoranthene             | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Fluorene                 | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| Pyrene                   | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 1-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |
| 2-Methylnaphthalene      | ND     | 0.00500         | "     | "        | "       | "        | "        | "             |       |

Date Sampled: **08/31/23 12:54**

| Analyte                            | Result | Reporting Limit | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | 0.0151 | 45.2 %          | 40-150 |          | "     | "        | "        | "      |       |
| Surrogate: Fluoranthene-d10        | 0.0177 | 53.0 %          | 40-150 |          | "     | "        | "        | "      |       |

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

Date Sampled: **08/31/23 12:54**


| Analyte      | Result       | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>Boron</b> | <b>0.240</b> | 0.0100          | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 12:54**

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

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWS01@3'**  
**2308703-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

|          |        |        |           |   |         |          |          |           |
|----------|--------|--------|-----------|---|---------|----------|----------|-----------|
| Arsenic  | 0.582  | 0.200  | mg/kg dry | 1 | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |
| Barium   | 124    | 0.400  | "         | " | "       | "        | "        | "         |
| Cadmium  | ND     | 0.200  | "         | " | "       | "        | "        | "         |
| Copper   | 1.16   | 0.400  | "         | " | "       | "        | "        | "         |
| Lead     | 6.53   | 0.200  | "         | " | "       | "        | "        | "         |
| Nickel   | 1.28   | 0.400  | "         | " | "       | "        | "        | "         |
| Silver   | 0.0229 | 0.0200 | "         | " | "       | "        | "        | "         |
| Zinc     | 4.65   | 0.400  | "         | " | "       | "        | "        | "         |
| Selenium | ND     | 0.260  | "         | " | "       | "        | "        | "         |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 12:54**

| Analyte              | Result | Reporting Limit | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND     | 0.30            | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 12:54**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 876    | 0.0551          | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/06/23 | EPA 6020B |       |
| Magnesium | 177    | 0.0551          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 258    | 0.0551          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **08/31/23 12:54**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.08   | 0.00100         | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**PWS01@3'**  
**2308703-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 12:54**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 90.8   |                 | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 12:54**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 6.52   | 0.0100          | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 12:54**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 6.95   |                 | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG03@2'**  
**2308703-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/31/23 13:00**

| Analyte      | Result       | Reporting | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--------------|--------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
|              |              | Limit     |       |          |         |          |          |           |       |
| <b>Boron</b> | <b>0.157</b> | 0.0100    | mg/L  | 1        | BGI0059 | 09/05/23 | 09/06/23 | EPA 6020B |       |

**Total Metals by EPA 6020B**

Date Sampled: **08/31/23 13:00**

| Analyte        | Result        | Reporting | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------|---------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|                |               | Limit     |           |          |         |          |          |           |       |
| <b>Arsenic</b> | <b>1.01</b>   | 0.200     | mg/kg dry | 1        | BGI0065 | 09/05/23 | 09/06/23 | EPA 6020B |       |
| <b>Barium</b>  | <b>187</b>    | 0.400     | "         | "        | "       | "        | "        | "         |       |
| Cadmium        | ND            | 0.200     | "         | "        | "       | "        | "        | "         |       |
| <b>Copper</b>  | <b>1.71</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| <b>Lead</b>    | <b>5.48</b>   | 0.200     | "         | "        | "       | "        | "        | "         |       |
| <b>Nickel</b>  | <b>1.83</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| <b>Silver</b>  | <b>0.0400</b> | 0.0200    | "         | "        | "       | "        | "        | "         |       |
| <b>Zinc</b>    | <b>5.44</b>   | 0.400     | "         | "        | "       | "        | "        | "         |       |
| Selenium       | ND            | 0.260     | "         | "        | "       | "        | "        | "         |       |

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/31/23 13:00**

| Analyte              | Result | Reporting | Units     | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
|                      |        | Limit     |           |          |         |          |          |           |       |
| Chromium, Hexavalent | ND     | 0.30      | mg/kg dry | 1        | BGI0046 | 09/02/23 | 09/05/23 | EPA 7196A |       |

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

Date Sampled: **08/31/23 13:00**

| Analyte          | Result      | Reporting | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                  |             | Limit     |          |          |         |          |          |           |       |
| <b>Calcium</b>   | <b>1140</b> | 0.0618    | mg/L dry | 1        | BGI0030 | 09/01/23 | 09/06/23 | EPA 6020B |       |
| <b>Magnesium</b> | <b>407</b>  | 0.0618    | "        | "        | "       | "        | "        | "         |       |
| <b>Sodium</b>    | <b>431</b>  | 0.0618    | "        | "        | "       | "        | "        | "         |       |

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1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**BKG03@2'**  
**2308703-11 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **08/31/23 13:00**

| Analyte                 | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.79   | 0.00100            | units | 1        | BGI0110 | 09/06/23 | 09/06/23 | Calculation |       |

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

Date Sampled: **08/31/23 13:00**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|--------------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 81.0   |                    | %     | 1        | BGI0022 | 09/01/23 | 09/01/23 | Calculation |       |

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

Date Sampled: **08/31/23 13:00**

| Analyte                   | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 8.69   | 0.0100             | mmhos/cm | 1        | BGI0054 | 09/04/23 | 09/05/23 | EPA 120.1 |       |

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

Date Sampled: **08/31/23 13:00**

| Analyte | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 7.05   |                    | pH Units | 1        | BGI0053 | 09/04/23 | 09/05/23 | EPA 9045D |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

## 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 BGI0016 - EPA 5030 Soil MS

##### Blank (BGI0016-BLK1)

Prepared: 09/01/23 Analyzed: 09/02/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | ND     | 0.0020 | mg/kg |        |  |      |        |  |  |  |
| Toluene                          | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Ethylbenzene                     | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Xylenes (total)                  | ND     | 0.010  | "     |        |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND     | 0.0050 | "     |        |  |      |        |  |  |  |
| Naphthalene                      | ND     | 0.0038 | "     |        |  |      |        |  |  |  |
| Gasoline Range Hydrocarbons      | ND     | 0.50   | "     |        |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0292 |        | "     | 0.0400 |  | 73.1 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0398 |        | "     | 0.0400 |  | 99.4 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0360 |        | "     | 0.0400 |  | 90.1 | 50-150 |  |  |  |

##### LCS (BGI0016-BS1)

Prepared & Analyzed: 09/01/23

|                                  |        |        |       |        |  |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene                          | 0.154  | 0.0020 | mg/kg | 0.150  |  | 103  | 70-130 |  |  |  |
| Toluene                          | 0.160  | 0.0050 | "     | 0.150  |  | 107  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.180  | 0.0050 | "     | 0.150  |  | 120  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.347  | 0.010  | "     | 0.300  |  | 116  | 70-130 |  |  |  |
| o-Xylene                         | 0.167  | 0.0050 | "     | 0.150  |  | 111  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.158  | 0.0050 | "     | 0.150  |  | 105  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.160  | 0.0050 | "     | 0.150  |  | 107  | 70-130 |  |  |  |
| Naphthalene                      | 0.127  | 0.0038 | "     | 0.150  |  | 84.4 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0317 |        | "     | 0.0400 |  | 79.3 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0402 |        | "     | 0.0400 |  | 100  | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0397 |        | "     | 0.0400 |  | 99.2 | 50-150 |  |  |  |

##### Matrix Spike (BGI0016-MS1)

Source: 2308683-01

Prepared: 09/01/23 Analyzed: 09/02/23

|                                  |        |        |       |        |    |      |        |  |  |  |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene                          | 0.152  | 0.0020 | mg/kg | 0.150  | ND | 102  | 70-130 |  |  |  |
| Toluene                          | 0.164  | 0.0050 | "     | 0.150  | ND | 110  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.180  | 0.0050 | "     | 0.150  | ND | 120  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.331  | 0.010  | "     | 0.300  | ND | 110  | 70-130 |  |  |  |
| o-Xylene                         | 0.172  | 0.0050 | "     | 0.150  | ND | 115  | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 0.163  | 0.0050 | "     | 0.150  | ND | 109  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 0.165  | 0.0050 | "     | 0.150  | ND | 110  | 70-130 |  |  |  |
| Naphthalene                      | 0.136  | 0.0038 | "     | 0.150  | ND | 90.3 | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0290 |        | "     | 0.0400 |    | 72.4 | 50-150 |  |  |  |
| Surrogate: Toluene-d8            | 0.0392 |        | "     | 0.0400 |    | 98.0 | 50-150 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0383 |        | "     | 0.0400 |    | 95.8 | 50-150 |  |  |  |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0016 - EPA 5030 Soil MS**

| Matrix Spike Dup (BGI0016-MSD1)  | Source: 2308683-01 |        |       | Prepared: 09/01/23 Analyzed: 09/02/23 |    |      |        |      |    |  |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|------|----|--|
| Benzene                          | 0.145              | 0.0020 | mg/kg | 0.150                                 | ND | 96.8 | 70-130 | 4.80 | 30 |  |
| Toluene                          | 0.156              | 0.0050 | "     | 0.150                                 | ND | 104  | 70-130 | 4.90 | 30 |  |
| Ethylbenzene                     | 0.173              | 0.0050 | "     | 0.150                                 | ND | 116  | 70-130 | 3.63 | 30 |  |
| m,p-Xylene                       | 0.341              | 0.010  | "     | 0.300                                 | ND | 114  | 70-130 | 3.11 | 30 |  |
| o-Xylene                         | 0.170              | 0.0050 | "     | 0.150                                 | ND | 114  | 70-130 | 1.10 | 30 |  |
| 1,2,4-Trimethylbenzene           | 0.177              | 0.0050 | "     | 0.150                                 | ND | 118  | 70-130 | 8.25 | 30 |  |
| 1,3,5-Trimethylbenzene           | 0.150              | 0.0050 | "     | 0.150                                 | ND | 100  | 70-130 | 9.33 | 30 |  |
| Naphthalene                      | 0.139              | 0.0038 | "     | 0.150                                 | ND | 92.6 | 70-130 | 2.47 | 30 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0288             |        | "     | 0.0400                                |    | 72.1 | 50-150 |      |    |  |
| Surrogate: Toluene-d8            | 0.0414             |        | "     | 0.0400                                |    | 104  | 50-150 |      |    |  |
| Surrogate: 4-Bromofluorobenzene  | 0.0364             |        | "     | 0.0400                                |    | 91.0 | 50-150 |      |    |  |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0019 - EPA 3550A**

**Blank (BGI0019-BLK1)**

Prepared & Analyzed: 09/01/23

|               |    |    |       |
|---------------|----|----|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg |
| C28-C36 (ORO) | ND | 50 | "     |

|                        |      |   |      |     |        |
|------------------------|------|---|------|-----|--------|
| Surrogate: o-Terphenyl | 15.8 | " | 12.5 | 126 | 30-150 |
|------------------------|------|---|------|-----|--------|

**LCS (BGI0019-BS1)**

Prepared & Analyzed: 09/01/23

|                        |      |    |       |     |        |        |
|------------------------|------|----|-------|-----|--------|--------|
| C10-C28 (DRO)          | 487  | 50 | mg/kg | 500 | 97.5   | 70-130 |
| Surrogate: o-Terphenyl | 15.9 | "  | 12.5  | 127 | 30-150 |        |

**Matrix Spike (BGI0019-MS1)**

Source: 2308683-01

Prepared & Analyzed: 09/01/23

|                        |      |    |       |     |        |      |        |
|------------------------|------|----|-------|-----|--------|------|--------|
| C10-C28 (DRO)          | 467  | 50 | mg/kg | 500 | 40.0   | 85.3 | 70-130 |
| Surrogate: o-Terphenyl | 15.7 | "  | 12.5  | 126 | 30-150 |      |        |

**Matrix Spike Dup (BGI0019-MSD1)**

Source: 2308683-01

Prepared & Analyzed: 09/01/23

|                        |      |    |       |     |        |      |        |      |    |
|------------------------|------|----|-------|-----|--------|------|--------|------|----|
| C10-C28 (DRO)          | 472  | 50 | mg/kg | 500 | 40.0   | 86.5 | 70-130 | 1.24 | 20 |
| Surrogate: o-Terphenyl | 16.0 | "  | 12.5  | 128 | 30-150 |      |        |      |    |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

## 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 |

#### Batch BGI0112 - EPA 5030 Soil MS

##### Blank (BGI0112-BLK1)

Prepared & Analyzed: 09/06/23

|                                    |        |         |       |        |  |      |  |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--|--------|--|--|--|
| Acenaphthene                       | ND     | 0.00500 | mg/kg |        |  |      |  |        |  |  |  |
| Anthracene                         | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Benzo (a) anthracene               | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Benzo (a) pyrene                   | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Benzo (b) fluoranthene             | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Benzo (k) fluoranthene             | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Chrysene                           | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Dibenz (a,h) anthracene            | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Fluoranthene                       | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Fluorene                           | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Indeno (1,2,3-cd) pyrene           | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Pyrene                             | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| 1-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| 2-Methylnaphthalene                | ND     | 0.00500 | "     |        |  |      |  |        |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0274 |         | "     | 0.0333 |  | 82.2 |  | 40-150 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0318 |         | "     | 0.0333 |  | 95.5 |  | 40-150 |  |  |  |

##### LCS (BGI0112-BS1)

Prepared & Analyzed: 09/06/23

|                                    |        |         |       |        |  |      |  |        |  |  |  |
|------------------------------------|--------|---------|-------|--------|--|------|--|--------|--|--|--|
| Acenaphthene                       | 0.0309 | 0.00500 | mg/kg | 0.0333 |  | 92.7 |  | 31-137 |  |  |  |
| Anthracene                         | 0.0298 | 0.00500 | "     | 0.0333 |  | 89.3 |  | 30-120 |  |  |  |
| Benzo (a) anthracene               | 0.0292 | 0.00500 | "     | 0.0333 |  | 87.5 |  | 30-120 |  |  |  |
| Benzo (a) pyrene                   | 0.0294 | 0.00500 | "     | 0.0333 |  | 88.1 |  | 30-120 |  |  |  |
| Benzo (b) fluoranthene             | 0.0300 | 0.00500 | "     | 0.0333 |  | 90.1 |  | 30-120 |  |  |  |
| Benzo (k) fluoranthene             | 0.0317 | 0.00500 | "     | 0.0333 |  | 95.0 |  | 30-120 |  |  |  |
| Chrysene                           | 0.0319 | 0.00500 | "     | 0.0333 |  | 95.6 |  | 30-120 |  |  |  |
| Dibenz (a,h) anthracene            | 0.0257 | 0.00500 | "     | 0.0333 |  | 77.0 |  | 30-120 |  |  |  |
| Fluoranthene                       | 0.0317 | 0.00500 | "     | 0.0333 |  | 95.0 |  | 30-120 |  |  |  |
| Fluorene                           | 0.0308 | 0.00500 | "     | 0.0333 |  | 92.3 |  | 30-120 |  |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0321 | 0.00500 | "     | 0.0333 |  | 96.4 |  | 30-120 |  |  |  |
| Pyrene                             | 0.0333 | 0.00500 | "     | 0.0333 |  | 99.9 |  | 35-142 |  |  |  |
| 1-Methylnaphthalene                | 0.0250 | 0.00500 | "     | 0.0333 |  | 75.0 |  | 35-142 |  |  |  |
| 2-Methylnaphthalene                | 0.0367 | 0.00500 | "     | 0.0333 |  | 110  |  | 35-142 |  |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0282 |         | "     | 0.0333 |  | 84.5 |  | 40-150 |  |  |  |
| Surrogate: Fluoranthene-d10        | 0.0314 |         | "     | 0.0333 |  | 94.3 |  | 40-150 |  |  |  |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

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

### Summit Scientific

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

#### Batch BGI0112 - EPA 5030 Soil MS

##### Matrix Spike (BGI0112-MS1)

Source: 2308662-01

Prepared & Analyzed: 09/06/23

|                                    |        |         |       |        |    |      |        |  |  |
|------------------------------------|--------|---------|-------|--------|----|------|--------|--|--|
| Acenaphthene                       | 0.0171 | 0.00500 | mg/kg | 0.0333 | ND | 51.3 | 31-137 |  |  |
| Anthracene                         | 0.0176 | 0.00500 | "     | 0.0333 | ND | 52.9 | 30-120 |  |  |
| Benzo (a) anthracene               | 0.0169 | 0.00500 | "     | 0.0333 | ND | 50.7 | 30-120 |  |  |
| Benzo (a) pyrene                   | 0.0145 | 0.00500 | "     | 0.0333 | ND | 43.4 | 30-120 |  |  |
| Benzo (b) fluoranthene             | 0.0162 | 0.00500 | "     | 0.0333 | ND | 48.5 | 30-120 |  |  |
| Benzo (k) fluoranthene             | 0.0151 | 0.00500 | "     | 0.0333 | ND | 45.3 | 30-120 |  |  |
| Chrysene                           | 0.0183 | 0.00500 | "     | 0.0333 | ND | 55.0 | 30-120 |  |  |
| Dibenz (a,h) anthracene            | 0.0137 | 0.00500 | "     | 0.0333 | ND | 41.2 | 30-120 |  |  |
| Fluoranthene                       | 0.0205 | 0.00500 | "     | 0.0333 | ND | 61.5 | 30-120 |  |  |
| Fluorene                           | 0.0177 | 0.00500 | "     | 0.0333 | ND | 53.2 | 30-120 |  |  |
| Indeno (1,2,3-cd) pyrene           | 0.0153 | 0.00500 | "     | 0.0333 | ND | 45.8 | 30-120 |  |  |
| Pyrene                             | 0.0221 | 0.00500 | "     | 0.0333 | ND | 66.4 | 35-142 |  |  |
| 1-Methylnaphthalene                | 0.0147 | 0.00500 | "     | 0.0333 | ND | 44.0 | 15-130 |  |  |
| 2-Methylnaphthalene                | 0.0188 | 0.00500 | "     | 0.0333 | ND | 56.3 | 15-130 |  |  |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0158 |         | "     | 0.0333 |    | 47.5 | 40-150 |  |  |
| Surrogate: Fluoranthene-d10        | 0.0176 |         | "     | 0.0333 |    | 52.9 | 40-150 |  |  |

##### Matrix Spike Dup (BGI0112-MSD1)

Source: 2308662-01

Prepared & Analyzed: 09/06/23

|                                    |        |         |       |        |    |      |        |      |    |
|------------------------------------|--------|---------|-------|--------|----|------|--------|------|----|
| Acenaphthene                       | 0.0162 | 0.00500 | mg/kg | 0.0333 | ND | 48.7 | 31-137 | 5.20 | 30 |
| Anthracene                         | 0.0164 | 0.00500 | "     | 0.0333 | ND | 49.3 | 30-120 | 7.00 | 30 |
| Benzo (a) anthracene               | 0.0171 | 0.00500 | "     | 0.0333 | ND | 51.3 | 30-120 | 1.22 | 30 |
| Benzo (a) pyrene                   | 0.0171 | 0.00500 | "     | 0.0333 | ND | 51.2 | 30-120 | 16.5 | 30 |
| Benzo (b) fluoranthene             | 0.0168 | 0.00500 | "     | 0.0333 | ND | 50.5 | 30-120 | 3.88 | 30 |
| Benzo (k) fluoranthene             | 0.0161 | 0.00500 | "     | 0.0333 | ND | 48.4 | 30-120 | 6.58 | 30 |
| Chrysene                           | 0.0179 | 0.00500 | "     | 0.0333 | ND | 53.7 | 30-120 | 2.41 | 30 |
| Dibenz (a,h) anthracene            | 0.0113 | 0.00500 | "     | 0.0333 | ND | 34.0 | 30-120 | 19.1 | 30 |
| Fluoranthene                       | 0.0188 | 0.00500 | "     | 0.0333 | ND | 56.4 | 30-120 | 8.63 | 30 |
| Fluorene                           | 0.0182 | 0.00500 | "     | 0.0333 | ND | 54.7 | 30-120 | 2.72 | 30 |
| Indeno (1,2,3-cd) pyrene           | 0.0167 | 0.00500 | "     | 0.0333 | ND | 50.0 | 30-120 | 8.69 | 30 |
| Pyrene                             | 0.0203 | 0.00500 | "     | 0.0333 | ND | 60.9 | 35-142 | 8.68 | 30 |
| 1-Methylnaphthalene                | 0.0153 | 0.00500 | "     | 0.0333 | ND | 45.8 | 15-130 | 3.81 | 50 |
| 2-Methylnaphthalene                | 0.0220 | 0.00500 | "     | 0.0333 | ND | 66.1 | 15-130 | 16.0 | 50 |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0154 |         | "     | 0.0333 |    | 46.3 | 40-150 |      |    |
| Surrogate: Fluoranthene-d10        | 0.0173 |         | "     | 0.0333 |    | 51.8 | 40-150 |      |    |

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0059 - EPA 3050B**

**Blank (BGI0059-BLK1)**

Prepared: 09/05/23 Analyzed: 09/06/23

Boron ND 0.0100 mg/L

**LCS (BGI0059-BS1)**

Prepared: 09/05/23 Analyzed: 09/06/23

Boron 5.52 0.0100 mg/L 5.00 110 80-120

**Duplicate (BGI0059-DUP1)**

**Source: 2308703-01**

Prepared: 09/05/23 Analyzed: 09/06/23

Boron 0.0931 0.0100 mg/L 0.189 68.0 20 QR-01

**Matrix Spike (BGI0059-MS1)**

**Source: 2308703-01**

Prepared: 09/05/23 Analyzed: 09/06/23

Boron 5.86 0.0100 mg/L 5.00 0.189 114 75-125

**Matrix Spike Dup (BGI0059-MSD1)**

**Source: 2308703-01**

Prepared: 09/05/23 Analyzed: 09/06/23

Boron 6.20 0.0100 mg/L 5.00 0.189 120 75-125 5.63 25

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0065 - EPA 3050B**

**Blank (BGI0065-BLK1)**

Prepared: 09/05/23 Analyzed: 09/06/23

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

**LCS (BGI0065-BS1)**

Prepared: 09/05/23 Analyzed: 09/06/23

|         |      |        |           |      |      |        |
|---------|------|--------|-----------|------|------|--------|
| Arsenic | 40.1 | 0.200  | mg/kg wet | 40.0 | 100  | 80-120 |
| Barium  | 39.8 | 0.400  | "         | 40.0 | 99.6 | 80-120 |
| Cadmium | 1.99 | 0.200  | "         | 2.00 | 99.6 | 80-120 |
| Copper  | 39.7 | 0.400  | "         | 40.0 | 99.3 | 80-120 |
| Lead    | 20.1 | 0.200  | "         | 20.0 | 100  | 80-120 |
| Nickel  | 39.2 | 0.400  | "         | 40.0 | 98.0 | 80-120 |
| Silver  | 1.99 | 0.0200 | "         | 2.00 | 99.3 | 80-120 |
| Zinc    | 39.0 | 0.400  | "         | 40.0 | 97.5 | 80-120 |

**Duplicate (BGI0065-DUP1)**

Source: 2308703-01

Prepared: 09/05/23 Analyzed: 09/06/23

|          |        |        |           |        |      |     |       |
|----------|--------|--------|-----------|--------|------|-----|-------|
| Arsenic  | 0.890  | 0.200  | mg/kg dry | 0.910  | 2.29 | 20  |       |
| Barium   | 200    | 0.400  | "         | 299    | 39.6 | 20  | QR-04 |
| Cadmium  | 0.121  | 0.200  | "         | 0.158  | 26.3 | 20  | QR-01 |
| Copper   | 1.09   | 0.400  | "         | 1.12   | 2.95 | 20  |       |
| Lead     | 6.12   | 0.200  | "         | 7.10   | 14.8 | 20  |       |
| Nickel   | 1.39   | 0.400  | "         | 1.43   | 3.06 | 20  |       |
| Silver   | 0.0220 | 0.0200 | "         | 0.0289 | 27.0 | 20  | QR-01 |
| Zinc     | 4.56   | 0.400  | "         | 4.68   | 2.57 | 20  |       |
| Selenium | ND     | 0.260  | "         | ND     |      | 200 |       |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0065 - EPA 3050B**

| Matrix Spike (BGI0065-MS1) |      | Source: 2308703-01 |           |      | Prepared: 09/05/23 |      | Analyzed: 09/08/23 |  |  |       |
|----------------------------|------|--------------------|-----------|------|--------------------|------|--------------------|--|--|-------|
| Arsenic                    | 17.6 | 0.200              | mg/kg dry | 45.8 | 0.910              | 36.4 | 75-125             |  |  | QM-01 |
| Barium                     | 241  | 0.400              | "         | 45.8 | 299                | NR   | 75-125             |  |  | QM-01 |
| Cadmium                    | 2.75 | 0.200              | "         | 2.29 | 0.158              | 113  | 75-125             |  |  |       |
| Copper                     | 16.1 | 0.400              | "         | 45.8 | 1.12               | 32.7 | 75-125             |  |  | QM-01 |
| Lead                       | 33.2 | 0.200              | "         | 22.9 | 7.10               | 114  | 75-125             |  |  |       |
| Nickel                     | 18.1 | 0.400              | "         | 45.8 | 1.43               | 36.4 | 75-125             |  |  | QM-01 |
| Silver                     | 2.63 | 0.0200             | "         | 2.29 | 0.0289             | 114  | 75-125             |  |  |       |
| Zinc                       | 21.6 | 0.400              | "         | 45.8 | 4.68               | 36.9 | 75-125             |  |  | QM-01 |

| Matrix Spike Dup (BGI0065-MSD1) |      | Source: 2308703-01 |           |      | Prepared: 09/05/23 |      | Analyzed: 09/08/23 |      |    |       |
|---------------------------------|------|--------------------|-----------|------|--------------------|------|--------------------|------|----|-------|
| Arsenic                         | 15.2 | 0.200              | mg/kg dry | 45.8 | 0.910              | 31.1 | 75-125             | 14.9 | 25 | QM-01 |
| Barium                          | 269  | 0.400              | "         | 45.8 | 299                | NR   | 75-125             | 11.1 | 25 | QM-01 |
| Cadmium                         | 2.47 | 0.200              | "         | 2.29 | 0.158              | 101  | 75-125             | 10.5 | 25 |       |
| Copper                          | 13.9 | 0.400              | "         | 45.8 | 1.12               | 27.9 | 75-125             | 14.6 | 25 | QM-01 |
| Lead                            | 27.7 | 0.200              | "         | 22.9 | 7.10               | 89.9 | 75-125             | 18.2 | 25 |       |
| Nickel                          | 15.7 | 0.400              | "         | 45.8 | 1.43               | 31.0 | 75-125             | 14.5 | 25 | QM-01 |
| Silver                          | 2.34 | 0.0200             | "         | 2.29 | 0.0289             | 101  | 75-125             | 11.8 | 25 |       |
| Zinc                            | 19.7 | 0.400              | "         | 45.8 | 4.68               | 32.8 | 75-125             | 9.13 | 25 | QM-01 |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0046 - 3060A Mod**

**Blank (BGI0046-BLK1)**

Prepared: 09/02/23 Analyzed: 09/05/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGI0046-BS1)**

Prepared: 09/02/23 Analyzed: 09/05/23

Chromium, Hexavalent 25.8 0.30 mg/kg wet 25.0 103 80-120

**Duplicate (BGI0046-DUP1)**

**Source: 2308703-01**

Prepared: 09/02/23 Analyzed: 09/05/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGI0046-MS1)**

**Source: 2308703-01**

Prepared: 09/02/23 Analyzed: 09/05/23

Chromium, Hexavalent 29.5 0.30 mg/kg dry 28.7 ND 103 75-125

**Matrix Spike Dup (BGI0046-MSD1)**

**Source: 2308703-01**

Prepared: 09/02/23 Analyzed: 09/05/23

Chromium, Hexavalent 29.1 0.30 mg/kg dry 28.7 ND 102 75-125 1.37 20

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

**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 BGI0030 - General Preparation**

**Blank (BGI0030-BLK1)**

Prepared: 09/01/23 Analyzed: 09/05/23

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

**LCS (BGI0030-BS1)**

Prepared: 09/01/23 Analyzed: 09/05/23

|           |      |        |          |      |     |        |
|-----------|------|--------|----------|------|-----|--------|
| Calcium   | 5.34 | 0.0500 | mg/L wet | 5.00 | 107 | 70-130 |
| Magnesium | 5.00 | 0.0500 | "        | 5.00 | 100 | 70-130 |
| Sodium    | 5.20 | 0.0500 | "        | 5.00 | 104 | 70-130 |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

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

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

**Batch BGI0022 - General Preparation**

| Duplicate (BGI0022-DUP1) |      | Source: 2308698-01 |   |  | Prepared & Analyzed: 09/01/23 |  |      |  |    |  |
|--------------------------|------|--------------------|---|--|-------------------------------|--|------|--|----|--|
| % Solids                 | 79.2 |                    | % |  | 78.4                          |  | 1.04 |  | 20 |  |

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

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

**Summit Scientific**

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

**Batch BGI0054 - General Preparation**

**Blank (BGI0054-BLK1)**

Prepared: 09/04/23 Analyzed: 09/05/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGI0054-BS1)**

Prepared: 09/04/23 Analyzed: 09/05/23

Specific Conductance (EC) 0.145 0.0100 mmhos/cm 0.150 96.7 95-105

**Duplicate (BGI0054-DUP1)**

**Source: 2308703-01**

Prepared: 09/04/23 Analyzed: 09/05/23

Specific Conductance (EC) 0.403 0.0100 mmhos/cm 0.416 3.30 20

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

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

**Summit Scientific**

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

**Batch BGI0053 - General Preparation**

**LCS (BGI0053-BS1)**

Prepared: 09/04/23 Analyzed: 09/05/23

|    |      |          |      |      |        |
|----|------|----------|------|------|--------|
| pH | 9.08 | pH Units | 9.18 | 98.9 | 95-105 |
|----|------|----------|------|------|--------|

**Duplicate (BGI0053-DUP1)**

**Source: 2308703-01**

Prepared: 09/04/23 Analyzed: 09/05/23

|    |      |          |      |       |    |
|----|------|----------|------|-------|----|
| pH | 8.12 | pH Units | 8.08 | 0.494 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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CGRS Inc.  
1301 Academy Ct.  
Fort Collins CO, 80524

Project: Chaco Energy - Kindt

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
09/11/23 09:01

### Notes and Definitions

|       |   |
|-------|---|
| QR-04 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.               |
| QR-01 | Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results. |
| QM-01 | The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.   |
| 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   |