



Certificate of Analysis

Number: 2500-20100243-001A

Greeley Laboratory
2881 S. 31st Ave
Unit 6-8
Greeley, CO 80631

Tony Walton
Bonanza Creek
4301 Industrial Parkway
Evans, CO 80620

Nov. 02, 2020

Station Name: SPH W42-29-30 XRLNB GL
Station Number: 66004652
Station Location: PH B-28 Pad
Sample Point: Meter Tube Run
Analyzed: 11/02/2020 10:54:52 by KRS

Sampled By: Russ Fox
Sample Of: Gas Spot
Sample Date: 10/21/2020 11:50
Sample Conditions: 1002.15 psig, @ 84.39 °F
Method: GPA-2261M
Cylinder No: 2500-00043

Analytical Data

| Components | Mol. % | Wt. % | GPM at 14.73 psia | | |
|----------------|---------|---------|----------------------|----------------|-------|
| Nitrogen | 1.101 | 1.363 | | GPM TOTAL C2+ | 6.770 |
| Carbon Dioxide | 1.852 | 3.602 | | GPM TOTAL C3+ | 3.593 |
| Methane | 73.265 | 51.942 | | GPM TOTAL iC5+ | 0.542 |
| Ethane | 11.835 | 15.727 | 3.177 | | |
| Propane | 7.438 | 14.495 | 2.057 | | |
| Iso-butane | 0.750 | 1.926 | 0.246 | | |
| n-Butane | 2.364 | 6.072 | 0.748 | | |
| Iso-pentane | 0.418 | 1.333 | 0.153 | | |
| n-Pentane | 0.520 | 1.658 | 0.189 | | |
| Hexanes Plus | 0.457 | 1.882 | 0.200 | | |
| | 100.000 | 100.000 | 6.770 | | |

| Calculated Physical Properties | Total | C6+ |
|--|--------|--------|
| Relative Density Real Gas | 0.7842 | 3.2176 |
| Calculated Molecular Weight | 22.63 | 93.19 |
| Compressibility Factor | 0.9959 | |
| GPA 2172 Calculation: | | |
| Calculated Gross BTU per ft³ @ 14.73 psia & 60°F | | |
| Real Gas Dry BTU | 1307 | 5141 |
| Water Sat. Gas Base BTU | 1285 | 5052 |

Comments: H2S Field Content 0.25 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

wool# 20100243

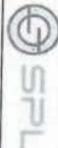






SPL

Emergency Contact Number: 800-424-9300

14

Cylinder #: 43
Company: Benanza Creek System:
Location: PH B-28 Pad Sample of: ☒ Gas ☐ Oil ☐ Condensate
Station: SPH W42-29.30 XRLAB 6L Station No.: 66004652
Sample Point: Meter Tube Run Type: ☒ Spot ☐ Composite
Source Press.: 1002.15 Source Temp.: 84.39 Ambient Temp.: 550 F
Sampled By: Russ Fox Company: Grues
Date/Time Off: 10-21-20 11:50 (AM/PM) On: (AM/PM)
Sample Pressure: 1002.15 (SIG ☒ PSIA ☐ Sample Temp.: 84.39 (F°)
H₂O Cont.: LBS/MMSCF H₂S Cont.: 0.25 (PPM ☒ GRAINS ☐ %
% Outage: Remarks: wet Gas !!

|  | | SPL Work Order No.: | | Acct. Mate Code: | | Dept. Code: | | Page 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|--------------------------------|---|--------------------------------|---|------------|-------------|------------|-----------------|------------------------|--------------------------------------|------------------------|----------|----------|----------|-------|-----|--|--|---|--|--|--|------|-------|---------------------------------|----------|----------|-------|-----|--|--|---|--|--|--|-------|-------|---------------------------------|----------|----------|-------|-----|--|--|---|--|--|--|-------|-------|--------------------------------|--------------|----------|-------|-----|--|--|---|--|--|--|-------|------|---------------------------------|---------|----------|------|-----|--|--|---|--|--|--|-------|-------|-------------------------------------|----------|----------|------|-----|--|--|---|--|--|--|-------|------|------------------------------|----------|----------|-------|-----|--|--|---|--|--|--|-------|------|-------------------------------------|----------|----------|-------|-----|--|--|---|--|--|--|------|-------|--------------------------------------|----------|----------|-------|-----|--|--|---|--|--|--|-------|-------|-------------------------------------|---|--|--|--|--|--|--|--|
| Report To: Bonanza Creek Energy (Company Name): Address: 4301 Industrial Pkwy | | Project/Station Name: Project/Station Number: Project/Station Location: | | Requested TAT* | | 10 business days * Surcharges May Apply (See quote for details) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: Evans CO 80620 Contact: Russ Fox - Graves Analytical Phone: 970-286-5071 Fax: (Company Name): Bonanza Creek Energy Address: 4301 Industrial Pkwy | | Indicate Billing Type: (Place "X" where appropriate) Net 30 day Acct. <input type="checkbox"/> Credit Card <input type="checkbox"/> Check # <<<Contact SPL, Inc for CC payment arrangements. | | Special Instructions: C6+ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: Evans CO 80620 Contact: Tony Walton - BCE Phone: 970-301-1178 Client PO# or Ref. No.: Contract/Proposal #: (i.e. SPLCO###) | | Terms: Cylinders will be rented for \$10/cyl. All cylinders checked out are to be returned within 21 days, whether they contain sample or not. Cylinders not returned after 30 days will be considered lost and will be billed at current replacement cost. | | Requested Analysis (Place an "X" next to Sample ID below) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID (used to log/track sample)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (Gas/Liq/Solid)</th> <th>Duplicate</th> <th>Composite</th> <th>Spot</th> <th>Cylinder #</th> <th>Date Out</th> <th>Date In</th> <th>Sample Temp (F)</th> <th>Sample Pressure (PSIG)</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>68004752</td> <td>10/19/20</td> <td>10:15</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>77.5</td> <td>195.6</td> <td>WHT F-4 Pad, WHT A-4.9XRLNB GLM</td> </tr> <tr> <td>66004754</td> <td>10/19/20</td> <td>11:40</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>109.4</td> <td>950.4</td> <td>WHT F-4 Pad, WHT A-4.9XRLNB GLM</td> </tr> <tr> <td>67004760</td> <td>10/19/20</td> <td>14:20</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>72.93</td> <td>15.74</td> <td>WHT F-4 Pad, WHT F-4 VRU Meier</td> </tr> <tr> <td>WHT F-4 DEHY</td> <td>10/19/20</td> <td>12:50</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>97.86</td> <td>1017</td> <td>WHT F-4 Pad, WHT F-4 DEHY Meier</td> </tr> <tr> <td>6801241</td> <td>10/16/20</td> <td>9:28</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>86.16</td> <td>90.85</td> <td>ANT J-18 Pad, ANT E14-A11-19HNC GPM</td> </tr> <tr> <td>66010211</td> <td>10/15/20</td> <td>9:01</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>72.16</td> <td>1150</td> <td>NP J-24 Pad, NP O-K-24HC GLM</td> </tr> <tr> <td>66004652</td> <td>10/21/20</td> <td>11:50</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>84.39</td> <td>1002</td> <td>PH B-28 Pad, SPH W42-29-30XRLNB GLM</td> </tr> <tr> <td>66010177</td> <td>10/22/20</td> <td>10:14</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>60.5</td> <td>699.7</td> <td>ANT 14-19 Pad, ANT E14-A11-19HNC GLM</td> </tr> <tr> <td>68004644</td> <td>10/21/20</td> <td>10:33</td> <td>Gas</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>97.13</td> <td>97.27</td> <td>PH B-28 Pad, SPH W42-29-30XRLNB GPM</td> </tr> </tbody> </table> | | Sample ID (used to log/track sample) | Sample Date | Sample Time | Sample Type (Gas/Liq/Solid) | Duplicate | Composite | Spot | Cylinder # | Date Out | Date In | Sample Temp (F) | Sample Pressure (PSIG) | Comments | 68004752 | 10/19/20 | 10:15 | Gas | | | X | | | | 77.5 | 195.6 | WHT F-4 Pad, WHT A-4.9XRLNB GLM | 66004754 | 10/19/20 | 11:40 | Gas | | | X | | | | 109.4 | 950.4 | WHT F-4 Pad, WHT A-4.9XRLNB GLM | 67004760 | 10/19/20 | 14:20 | Gas | | | X | | | | 72.93 | 15.74 | WHT F-4 Pad, WHT F-4 VRU Meier | WHT F-4 DEHY | 10/19/20 | 12:50 | Gas | | | X | | | | 97.86 | 1017 | WHT F-4 Pad, WHT F-4 DEHY Meier | 6801241 | 10/16/20 | 9:28 | Gas | | | X | | | | 86.16 | 90.85 | ANT J-18 Pad, ANT E14-A11-19HNC GPM | 66010211 | 10/15/20 | 9:01 | Gas | | | X | | | | 72.16 | 1150 | NP J-24 Pad, NP O-K-24HC GLM | 66004652 | 10/21/20 | 11:50 | Gas | | | X | | | | 84.39 | 1002 | PH B-28 Pad, SPH W42-29-30XRLNB GLM | 66010177 | 10/22/20 | 10:14 | Gas | | | X | | | | 60.5 | 699.7 | ANT 14-19 Pad, ANT E14-A11-19HNC GLM | 68004644 | 10/21/20 | 10:33 | Gas | | | X | | | | 97.13 | 97.27 | PH B-28 Pad, SPH W42-29-30XRLNB GPM | Cylinder Tracking Info: Cylinder # Date Out Date In GPA 2261 GC-C6GAS | | | | | | | |
| Sample ID (used to log/track sample) | Sample Date | Sample Time | Sample Type (Gas/Liq/Solid) | Duplicate | Composite | Spot | Cylinder # | Date Out | Date In | Sample Temp (F) | Sample Pressure (PSIG) | Comments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68004752 | 10/19/20 | 10:15 | Gas | | | X | | | | 77.5 | 195.6 | WHT F-4 Pad, WHT A-4.9XRLNB GLM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 66004754 | 10/19/20 | 11:40 | Gas | | | X | | | | 109.4 | 950.4 | WHT F-4 Pad, WHT A-4.9XRLNB GLM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 67004760 | 10/19/20 | 14:20 | Gas | | | X | | | | 72.93 | 15.74 | WHT F-4 Pad, WHT F-4 VRU Meier | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WHT F-4 DEHY | 10/19/20 | 12:50 | Gas | | | X | | | | 97.86 | 1017 | WHT F-4 Pad, WHT F-4 DEHY Meier | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6801241 | 10/16/20 | 9:28 | Gas | | | X | | | | 86.16 | 90.85 | ANT J-18 Pad, ANT E14-A11-19HNC GPM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 66010211 | 10/15/20 | 9:01 | Gas | | | X | | | | 72.16 | 1150 | NP J-24 Pad, NP O-K-24HC GLM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 66004652 | 10/21/20 | 11:50 | Gas | | | X | | | | 84.39 | 1002 | PH B-28 Pad, SPH W42-29-30XRLNB GLM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 66010177 | 10/22/20 | 10:14 | Gas | | | X | | | | 60.5 | 699.7 | ANT 14-19 Pad, ANT E14-A11-19HNC GLM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 68004644 | 10/21/20 | 10:33 | Gas | | | X | | | | 97.13 | 97.27 | PH B-28 Pad, SPH W42-29-30XRLNB GPM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampled By-Print Name: Russ Fox Signature:  | | Received By-Company: Signature:  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By-Print Name: Russ Fox Signature:  | | Received By-Print Name: Signature:  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By-Print Name: Signature: | | Received By-Print Name: Signature: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished By-Print Name: Signature: | | Received By-Print Name: Signature: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ship to Address: 208 Main St., Windsor, CO 80650 Phone: 970-460-0741 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |