



Certificate of Analysis

Number: 6030-21050044-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chris Prater
Cimarex Energy Co.
7101 Norris Road
Carlsbad, NM 88220

May 07, 2021

| | | | |
|-----------------------|--|--------------------|--|
| Station Name: | Black River 25 Fed Com 1H-2H CDP Check | Sampled By: | J.Thon |
| Station Number: | NCP0001126 | Sample Of: | Gas Spot |
| Station Location: | Cimarex | Sample Date: | 05/06/2021 01:45 |
| Sample Point: | Meter Run | Sample Conditions: | 66.08 psig, @ 205.66 °F Ambient: 74 °F |
| Type of Sample: | Spot-Cylinder | Effective Date: | 05/06/2021 01:45 |
| Heat Trace Used: | N/A | Method: | GPA-2261M |
| Sampling Method: | Fill and Purge | Cylinder No: | 510 |
| Sampling Company: | Cimarex | Instrument: | 70104124 (Inficon GC-MicroFusion) |
| C6+ Group Properties: | 60/30/10% - C6/C7/C8 | Last Inst. Cal.: | 05/03/2021 0:00 AM |
| | | Analyzed: | 05/07/2021 07:57:17 by EJ R |

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.73 psia | | |
|------------------|---------------------|-----------|---------|----------------------|----------------|-------|
| Hydrogen Sulfide | 0.000 | 0.00000 | 0.000 | | GPM TOTAL C2+ | 7.036 |
| Nitrogen | 1.086 | 1.09166 | 1.343 | | GPM TOTAL C3+ | 3.872 |
| Methane | 74.328 | 74.68785 | 52.628 | | GPM TOTAL iC5+ | 1.058 |
| Carbon Dioxide | 0.121 | 0.12179 | 0.235 | | | |
| Ethane | 11.725 | 11.78146 | 15.560 | 3.164 | | |
| Propane | 6.624 | 6.65627 | 12.892 | 1.841 | | |
| Iso-butane | 0.850 | 0.85391 | 2.180 | 0.281 | | |
| n-Butane | 2.176 | 2.18684 | 5.583 | 0.692 | | |
| Iso-pentane | 0.565 | 0.56743 | 1.798 | 0.208 | | |
| n-Pentane | 0.669 | 0.67234 | 2.131 | 0.245 | | |
| Hexanes Plus | 1.374 | 1.38045 | 5.650 | 0.605 | | |
| | 99.518 | 100.00000 | 100.000 | 7.036 | | |



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| | | Analyzed: | 05/07/2021 07:57:17 by EJ R |

| Physical Properties | Total | C6+ |
|---|--------|--------|
| Relative Density Real Gas | 0.7892 | 3.2176 |
| Calculated Molecular Weight | 22.77 | 93.19 |
| Compressibility Factor | 0.9957 | |
| GPA 2172 Calculation: | | |
| Calculated Gross BTU per ft³ @ 14.73 psia & 60°F | | |
| Real Gas Dry BTU | 1359 | 5141 |
| Water Sat. Gas Base BTU | 1336 | 5052 |
| Ideal, Gross HV - Dry at 14.73 psia | 1353.0 | |
| Ideal, Gross HV - Wet | 1329.5 | |
| Calculated Gross BTU per ft³ @ 14.696 psia & 60°F | | |
| Real Gas Dry BTU | 1356 | 5129 |
| Water Sat. Gas Base BTU | 1333 | 5040 |
| Ideal, Gross HV - Dry at 14.73 psia | 1349.9 | |
| Ideal, Gross HV - Wet | 1326.3 | |

Comments: H2S Field Content 0 ppm

Report generated by: Eric Ramirez

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

| Row Count: 31 | | | | | | | | |
|---------------|--------|--------|-------------|-----------|------|------------------|------------------|--------------------|
| DateTimeStamp | Volume | Energy | StaticPress | DiffPress | Temp | Flow Time (mins) | Flow Up Time Pct | Flow Down Time Pct |
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| 2021-05-28 | | | | | | | | |
| 2021-05-27 | | | | | | | | |
| 2021-05-26 | 0 | 0 | 66.79 | 0 | 85 | 0 | 0 | 10 |
| 2021-05-25 | 176.79 | 237.35 | 133.68 | 87.6 | 109 | 154.83 | 10.75 | 69.2 |
| 2021-05-24 | | | | | | | | |
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District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 29700

QUESTIONS

| | |
|--|--|
| Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701 | OGRID: 215099 |
| | Action Number: 29700 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

QUESTIONS**Determination of Reporting Requirements**

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.

| | |
|--|---|
| Was or is this venting or flaring caused by an emergency or malfunction | Yes |
| Did or will this venting or flaring last eight hours or more cumulatively within any 24-hour period from a single event | No |
| Is this considered a submission for a notification of a major venting or flaring | Yes, minor venting or flaring of natural gas. |
| The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting or flaring that is or may be a major or minor release under 19.13.29.7 NMAC. | |
| Was there or will there be at least 50 MCF of natural gas vented or flared during this event | Yes |
| Did this venting or flaring result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water | No |

Unregistered Facility Site

Please provide the facility details, if the venting or flaring occurred or is occurring at a facility that does not have an Facility ID (##) yet.

| | |
|-----------------------|----------------------------------|
| Facility or Site Name | BLACK RIVER 25 FED COM CDP FLARE |
| Facility Type | Flare Stack - (FS) |

Equipment Involved

| | |
|---|---------------|
| Primary Equipment Involved | Not answered. |
| Additional details for Equipment Involved. Please specify | Not answered. |

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

| | |
|--|---------------|
| Methane (CH4) percentage | 74 |
| Nitrogen (N2) percentage, if greater than one percent | 1 |
| Hydrogen Sulfide (H2S) PPM, rounded up | 0 |
| Carbon Dioxide (CO2) percentage, if greater than one percent | 0 |
| Oxygen (O2) percentage, if greater than one percent | 0 |
| If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas. | |
| Methane (CH4) percentage quality requirement | Not answered. |
| Nitrogen (N2) percentage quality requirement | Not answered. |
| Hydrogen Sulfide (H2S) PPM quality requirement | Not answered. |
| Carbon Dioxide (CO2) percentage quality requirement | Not answered. |
| Oxygen (O2) percentage quality requirement | Not answered. |

Date(s) and Time(s)

| | |
|---|------------|
| Date venting or flaring was discovered or commenced | 05/26/2021 |
| Time venting or flaring was discovered or commenced | 07:15 AM |
| Is the venting or flaring event complete | Yes |
| Date venting or flaring was terminated | 05/26/2021 |
| Time venting or flaring was terminated | 12:00 PM |
| Total duration of venting or flaring in hours, if venting or flaring has terminated | 3 |
| Longest duration of cumulative hours within any 24-hour period during this event | 3 |

Measured or Estimated Volume of Vented or Flared Natural Gas

| | |
|--|--|
| Natural Gas Vented (Mcf) Details | Not answered. |
| Natural Gas Flared (Mcf) Details | Cause: Equipment Failure Gas Compressor Station Natural Gas Flared Spilled: 177 Mcf Recovered: 0 Mcf Lost: 177 Mcf] |
| Other Released Details | Not answered. |
| Additional details for Measured or Estimated Volume(s). Please specify | Not answered. |
| Is this a gas only submission (i.e. only Mcf values reported) | Yes, according to supplied volumes this appears to be a "gas only" report. |

Venting or Flaring Resulting from Downstream Activity

| | |
|--|---------------|
| Was or is this venting or flaring a result of downstream activity | Yes |
| Date notified of downstream activity requiring this venting or flaring | Not answered. |
| Time notified of downstream activity requiring this venting or flaring | Not answered. |

Steps and Actions to Prevent Waste

| | |
|--|---|
| For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control. | True |
| Please explain reason for why this event was beyond your operator's control | Midstream Compressor went down |
| Steps taken to limit the duration and magnitude of venting or flaring | Bring Midstream compressor online ASAP. |
| Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring | Better Communication with midstream to mitigate such occurrences. |

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 29700

CONDITIONS

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|--|--|
| Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701 | OGRID: 215099 |
| | Action Number: 29700 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|--|----------------|
| system | If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event. | 5/30/2021 |