



Certificate of Analysis

Number: 6030-21010073-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Cimarex Energy
Cimarex Energy
7023 Norris Rd.
Carlsbad, NM 88220

Jan. 12, 2021

Station Name: Red Hills 32-5 CDP
Station Number: NCP1471384
Station Location: Cimarex
Sample Point: Meter Run
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge
Sampling Company: SPL
C6+ Group Properties: 60/30/10% - C6/C7/C8

Sampled By: James Hill
Sample Of: Gas Spot
Sample Date: 01/12/2021 12:04
Sample Conditions: 110.8 psig, @ 110.7 °F Ambient: 37 °F
Effective Date: 01/12/2021 12:04
Method: GPA-2261M
Cylinder No: 1111-002337
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 01/11/2021 0:00 AM
Analyzed: 01/12/2021 14:44:56 by KNF

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.73 psia | | |
|------------------|---------------------|-----------|---------|----------------------|----------------|-------|
| Hydrogen Sulfide | 0.000 | 0.00000 | 0.000 | | GPM TOTAL C2+ | 8.100 |
| Nitrogen | 1.226 | 1.22382 | 1.438 | | GPM TOTAL C3+ | 4.415 |
| Methane | 70.186 | 70.05511 | 47.151 | | GPM TOTAL iC5+ | 1.052 |
| Carbon Dioxide | 0.792 | 0.79062 | 1.460 | | | |
| Ethane | 13.741 | 13.71579 | 17.304 | 3.685 | | |
| Propane | 7.755 | 7.74055 | 14.321 | 2.142 | | |
| Iso-butane | 1.046 | 1.04425 | 2.547 | 0.343 | | |
| n-Butane | 2.777 | 2.77192 | 6.760 | 0.878 | | |
| Iso-pentane | 0.699 | 0.69760 | 2.112 | 0.256 | | |
| n-Pentane | 0.860 | 0.85880 | 2.600 | 0.313 | | |
| Hexanes Plus | 1.104 | 1.10154 | 4.307 | 0.483 | | |
| | 100.186 | 100.00000 | 100.000 | 8.100 | | |



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| Physical Properties | Total | C6+ |
|---|--------|--------|
| Relative Density Real Gas | 0.8265 | 3.2176 |
| Calculated Molecular Weight | 23.83 | 93.19 |
| Compressibility Factor | 0.9953 | |
| GPA 2172 Calculation: | | |
| Calculated Gross BTU per ft³ @ 14.73 psia & 60°F | | |
| Real Gas Dry BTU | 1398 | 5141 |
| Water Sat. Gas Base BTU | 1374 | 5052 |
| Ideal, Gross HV - Dry at 14.73 psia | 1391.5 | |
| Ideal, Gross HV - Wet | 1367.3 | |
| Calculated Gross BTU per ft³ @ 14.696 psia & 60°F | | |
| Real Gas Dry BTU | 1395 | 5129 |
| Water Sat. Gas Base BTU | 1371 | 5040 |
| Ideal, Gross HV - Dry at 14.73 psia | 1388.3 | |
| Ideal, Gross HV - Wet | 1364.0 | |

Comments: H2S Field Content 0 ppm
Mcf/day 21552.283

Hydrocarbon Laboratory Manager

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

| | 6/15/2021 | 6/14/2021 | 6/1 |
|---|-----------------|-----------------|---------|
| 5 | 15 | 15 | |
| 0 | 0 | 0 | |
| 0 | 56.0 | 49.0 | |
| S | FACILITY ISSUES | FACILITY ISSUES | FACIL |
| | VRU down | VRU down | Tank fl |

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 34223

QUESTIONS

| | |
|--|--|
| Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701 | OGRID: 215099 |
| | Action Number: 34223 |
| | 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 19.13.297 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 | RED HILLS 32-5 FED COM CDP LP 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 | 70 |
| 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 | 1 |
| 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 | 06/14/2021 |
| 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 | 06/15/2021 |
| Time venting or flaring was terminated | 01:00 AM |
| Total duration of venting or flaring in hours, if venting or flaring has terminated | 1 |
| Longest duration of cumulative hours within any 24-hour period during this event | 1 |

Measured or Estimated Volume of Vented or Flared Natural Gas

| | |
|--|--|
| Natural Gas Vented (Mcf) Details | Not answered. |
| Natural Gas Flared (Mcf) Details | Cause: Other Treating Tower Natural Gas Flared Spilled: 105 Mcf Recovered: 0 Mcf Lost: 105 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 | Not answered. |
| 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 | VRT at facility went down. Field team responded ASAP as problem developed. |
| Steps taken to limit the duration and magnitude of venting or flaring | Field team responded to VRU Malfunction within a reasonable time. |
| Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring | Field Team will continue to monitor VRU Unit and report and LP flares under 19.15.27 NMAC. |

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CONDITIONS

Action 34223

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| Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701 | OGRID: 215099 |
| | Action Number: 34223 |
| | 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. | 6/29/2021 |