



Certificate of Analysis

Number: 6030-21100279-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Zach LaCount
Mewbourne Oil Company
4801 Business Park Blvd
Hobbs, NM 88240

Nov. 01, 2021

Station Name: Bourbon Red 11/12 Battery
Station Number: N/A
Station Location: Mewbourne
Sample Point: Meter Run VRU
Instrument: 6030_GC2 (Agilent GC-7890B)
Last Inst. Cal.: 09/13/2021 14:54 PM
Analyzed: 10/29/2021 08:37:17 by EJR

Sampled By: Gerardo
Sample Of: Gas Spot
Sample Date: 10/23/2021 01:20
Sample Conditions: 45.2 psig Ambient: 80 °F
Effective Date: 10/23/2021 01:20
Method: GPA 2286
Cylinder No: 5030-00536

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.696 psia | |
|------------------|------------------------|-----------|---------|-----------------------|----------------------|
| Hydrogen Sulfide | 0.000 | 0.00000 | 0.000 | | GPM TOTAL C2+ 20.232 |
| Nitrogen | 0.534 | 0.52500 | 0.374 | | GPM TOTAL C3+ 15.774 |
| Methane | 34.336 | 33.72500 | 13.759 | | GPM TOTAL iC5+ 5.277 |
| Carbon Dioxide | 0.137 | 0.13500 | 0.151 | | |
| Ethane | 16.774 | 16.47600 | 12.599 | 4.458 | |
| Propane | 20.061 | 19.70500 | 22.097 | 5.493 | |
| Iso-butane | 4.021 | 3.95000 | 5.839 | 1.308 | |
| n-Butane | 11.797 | 11.58700 | 17.127 | 3.696 | |
| Iso-pentane | 3.947 | 3.87700 | 7.114 | 1.435 | |
| n-Pentane | 4.150 | 4.07600 | 7.479 | 1.495 | |
| Hexanes Plus | 6.051 | 5.94400 | 13.461 | 2.347 | |
| | 101.808 | 100.00000 | 100.000 | 20.232 | |

| Calculated Physical Properties | Total | C6+ |
|--------------------------------|--------|--------|
| Relative Density Real Gas | 1.3763 | 3.0671 |
| Calculated Molecular Weight | 39.32 | 88.83 |
| Compressibility Factor | 0.9858 | |

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.696 psia & 60°F

| | | |
|--------------------------------------|--------|--------|
| Real Gas Dry BTU | 2269 | 4772 |
| Water Sat. Gas Base BTU | 2229 | 4689 |
| Ideal, Gross HV - Dry at 14.696 psia | 2236.6 | 4771.8 |
| Ideal, Gross HV - Wet | 2197.6 | 0.000 |

Comments: H2S Field Content 0 ppm

Data reviewed by: Krystle Fitzwater, Laboratory Manager

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



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Nov. 01, 2021

Station Name: Bourbon Red 11/12 Battery
Station Number: N/A
Station Location: Mewbourne
Sample Point: Meter Run VRU
Analyzed: 10/29/2021 08:46:12 by EJRSampled By: Gerardo
Sample Of: Gas Spot
Sample Date: 10/23/2021 01:20
Sample Conditions: 45.2 psig
Method: GPA 2286
Cylinder No: 5030-00536

Analytical Data

| Components | Mol. % | Wt. % | GPM at 14.696 psia |
|------------------|---------|---------|-----------------------|
| Hydrogen Sulfide | 0.000 | 0.000 | |
| Nitrogen | 0.525 | 0.374 | |
| Methane | 33.725 | 13.759 | |
| Carbon Dioxide | 0.135 | 0.151 | |
| Ethane | 16.476 | 12.599 | 4.458 |
| Propane | 19.705 | 22.097 | 5.493 |
| Iso-Butane | 3.950 | 5.839 | 1.308 |
| n-Butane | 11.587 | 17.127 | 3.696 |
| Iso-Pentane | 3.877 | 7.114 | 1.435 |
| n-Pentane | 4.076 | 7.479 | 1.495 |
| i-Hexanes | 1.551 | 3.323 | 0.625 |
| n-Hexane | 0.981 | 2.144 | 0.407 |
| Benzene | 0.370 | 0.740 | 0.105 |
| Cyclohexane | 0.790 | 1.688 | 0.272 |
| i-Heptanes | 1.169 | 2.720 | 0.470 |
| n-Heptane | 0.233 | 0.594 | 0.109 |
| Toluene | 0.169 | 0.396 | 0.057 |
| i-Octanes | 0.593 | 1.556 | 0.258 |
| n-Octane | 0.026 | 0.075 | 0.014 |
| Ethylbenzene | 0.005 | 0.018 | 0.002 |
| Xylenes | 0.015 | 0.050 | 0.006 |
| i-Nonanes | 0.037 | 0.131 | 0.019 |
| n-Nonane | 0.005 | 0.013 | 0.003 |
| Decanes Plus | 0.000 | 0.013 | 0.000 |
| | 100.000 | 100.000 | 20.232 |



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Station Name: Bourbon Red 11/12 Battery
Station Number: N/A
Station Location: Mewbourne
Sample Point: Meter Run VRU
Analyzed: 10/29/2021 08:46:12 by EJRSampled By: Gerardo
Sample Of: Gas Spot
Sample Date: 10/23/2021 01:20
Sample Conditions: 45.2 psig
Method: GPA 2286
Cylinder No: 5030-00536

| Calculated Physical Properties | Total | C10+ |
|---|--------|--------|
| Calculated Molecular Weight | 39.32 | 0.00 |
| GPA 2172 Calculation: | | |
| Calculated Gross BTU per ft³ @ 14.696 psia & 60°F | | |
| Real Gas Dry BTU | 2268.8 | 0.000 |
| Water Sat. Gas Base BTU | 2229.2 | 0.000 |
| Relative Density Real Gas | 1.3763 | 0.0000 |
| Compressibility Factor | 0.9858 | |
| Ideal, Gross HV - Wet | 2197.6 | |
| Ideal, Gross HV - Dry at 14.696 psia | 2236.6 | |
| Net BTU Dry Gas - real gas | 2085 | |
| Net BTU Wet Gas - real gas | 2049 | |

Comments: H2S Field Content 0 ppm

Data reviewed by: Krystle Fitzwater, Laboratory Manager

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

Mewbourne Oil Company

Natural Gas Flared Calculation Methodology

Metering low-pressure gas diverted from the Vapor Recovery Unit ("VRU") to backup flare is not technologically feasible. Gas volumes for VRU downtime events will be calculated using an average metered VRU gas to oil production ratio. This GOR is derived from available relevant data.

Average Metered VRU Gas to Oil Production GOR = 0.18 Mcf/BBL

Flared gas volume = GOR * Oil Production Volume (BBL)

District I1625 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 61420

QUESTIONS

| | | |
|---|----------------|--|
| Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241 | OGRID: | 14744 |
| | Action Number: | 61420 |
| | Action Type: | [C-129] Venting and/or Flaring (C-129) |

QUESTIONS

| | |
|--|--|
| Prerequisites | |
| Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions. | |
| Incident Well | Not answered. |
| Incident Facility | [fAPP2130758645] BOURBON RED 11/12 B3LI ST COM #1H BATTERY |

| | |
|--|---|
| 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 and/or flaring caused by an emergency or malfunction | Yes |
| Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event | Yes |
| Is this considered a submission for a venting and/or flaring event | Yes, minor venting and/or flaring of natural gas. |
| An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC. | |
| Was there or will there be at least 50 MCF of natural gas vented and/or flared during this event | Yes |
| Did this venting and/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 |
| Was the venting and/or flaring within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence | No |

| | |
|---|-----------------|
| Equipment Involved | |
| Primary Equipment Involved | Other (Specify) |
| Additional details for Equipment Involved. Please specify | VRU |

| | |
|---|---------------|
| Representative Compositional Analysis of Vented or Flared Natural Gas | |
| Please provide the mole percent for the percentage questions in this group. | |
| Methane (CH4) percentage | 34 |
| 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 and/or flaring was discovered or commenced | 11/01/2021 |
| Time venting and/or flaring was discovered or commenced | 12:00 PM |
| Time venting and/or flaring was terminated | 08:30 PM |
| Cumulative hours during this event | 8 |

| | |
|---|---------------|
| 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 Other (Specify) Natural Gas Flared Released: 119 Mcf Recovered: 0 Mcf Lost: 119 Mcf] |
| Other Released Details | Not answered. |
| Additional details for Measured or Estimated Volume(s). Please specify | Volume calculated |
| Is this a gas only submission (i.e. only significant 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 and/or flaring a result of downstream activity | Not answered. |
| Was notification of downstream activity received by you or your operator | Not answered. |
| Downstream OGRID that should have notified you or your operator | Not answered. |
| Date notified of downstream activity requiring this venting and/or flaring | Not answered. |
| Time notified of downstream activity requiring this venting and/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 | VRU malfunctioned |
| Steps taken to limit the duration and magnitude of venting and/or flaring | Repaired VRU |
| Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring | Continued routine preventive maintenance and daily operational inspections |

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CONDITIONS

Action 61420

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| | |
|---|--|
| Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241 | OGRID: 14744 |
| | Action Number: 61420 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|--|----------------|
| zlacount | If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event. | 11/12/2021 |