



Certificate of Analysis

Number: 6030-21110085-003A

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. 16, 2021

Station Name: Creedence 21/16 W10B Battery
Station Location: Mewbourne
Sample Point: Meter Run
Instrument: 6030_GC2 (Agilent GC-7890B)
Last Inst. Cal.: 09/13/2021 13:54 PM
Analyzed: 11/12/2021 10:59:30 by EJL

Sampled By: Michael Mirabal
Sample Of: Gas Spot
Sample Date: 10/29/2021 11:18
Sample Conditions: 108 psig Ambient: 67 °F
Effective Date: 10/29/2021 11:18
Method: GPA 2286
Cylinder No: 5030-02167

Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.696 psia | | |
|----------------|------------------------|-----------|---------|-----------------------|----------------|--------|
| Nitrogen | 0.145 | 0.14500 | 0.101 | | GPM TOTAL C2+ | 22.235 |
| Methane | 26.742 | 26.65700 | 10.619 | | GPM TOTAL C3+ | 16.333 |
| Carbon Dioxide | 0.102 | 0.10200 | 0.111 | | GPM TOTAL iC5+ | 4.774 |
| Ethane | 21.861 | 21.79300 | 16.272 | 5.902 | | |
| Propane | 24.030 | 23.95500 | 26.232 | 6.683 | | |
| Iso-butane | 4.129 | 4.11600 | 5.941 | 1.364 | | |
| n-Butane | 11.035 | 11.00000 | 15.876 | 3.512 | | |
| Iso-pentane | 2.952 | 2.94300 | 5.273 | 1.090 | | |
| n-Pentane | 3.297 | 3.28700 | 5.889 | 1.207 | | |
| Hexanes Plus | 6.021 | 6.00200 | 13.686 | 2.477 | | |
| | 100.314 | 100.00000 | 100.000 | 22.235 | | |

Calculated Physical Properties

| | Total | C6+ |
|-----------------------------|--------|--------|
| Relative Density Real Gas | 1.4100 | 3.1531 |
| Calculated Molecular Weight | 40.27 | 91.32 |
| Compressibility Factor | 0.9850 | |

GPA 2172 Calculation:

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

| | | |
|--------------------------------------|--------|--------|
| Real Gas Dry BTU | 2332 | 4942 |
| Water Sat. Gas Base BTU | 2291 | 4856 |
| Ideal, Gross HV - Dry at 14.696 psia | 2296.5 | 4942.4 |
| Ideal, Gross HV - Wet | 2256.4 | 0.000 |

Data reviewed by: Eric Ramirez, Analyst

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. 16, 2021

Station Name: Creedence 21/16 W10B Battery
Station Location: Mewbourne
Sample Point: Meter Run
Cylinder No: 5030-02167
Analyzed: 11/16/2021 06:26:01 by EJR

Sampled By: Michael Mirabal
Sample Of: Gas Spot
Sample Date: 10/29/2021 11:18
Sample Conditions: 108 psig
Method: GPA 2286

Analytical Data

| Components | Mol. % | Wt. % | GPM at 14.696 psia |
|------------------|---------|---------|-----------------------|
| Hydrogen Sulfide | 0.000 | 0.000 | |
| Nitrogen | 0.145 | 0.101 | |
| Methane | 26.657 | 10.619 | |
| Carbon Dioxide | 0.102 | 0.111 | |
| Ethane | 21.793 | 16.272 | 5.902 |
| Propane | 23.955 | 26.232 | 6.683 |
| Iso-Butane | 4.116 | 5.941 | 1.364 |
| n-Butane | 11.000 | 15.876 | 3.512 |
| Iso-Pentane | 2.943 | 5.273 | 1.090 |
| n-Pentane | 3.287 | 5.889 | 1.207 |
| i-Hexanes | 1.554 | 3.272 | 0.631 |
| n-Hexane | 1.099 | 2.357 | 0.459 |
| Benzene | 0.072 | 0.140 | 0.020 |
| Cyclohexane | 0.568 | 1.185 | 0.196 |
| i-Heptanes | 1.269 | 2.941 | 0.521 |
| n-Heptane | 0.347 | 0.859 | 0.162 |
| Toluene | 0.088 | 0.202 | 0.030 |
| i-Octanes | 0.816 | 2.107 | 0.363 |
| n-Octane | 0.055 | 0.153 | 0.029 |
| Ethylbenzene | 0.000 | 0.005 | 0.000 |
| Xylenes | 0.028 | 0.086 | 0.011 |
| i-Nonanes | 0.089 | 0.287 | 0.045 |
| n-Nonane | 0.011 | 0.038 | 0.006 |
| Decanes Plus | 0.006 | 0.054 | 0.004 |
| | 100.000 | 100.000 | 22.235 |

Calculated Physical Properties

Calculated Molecular Weight

Total

40.27

C10+

156.31

GPA 2172 Calculation:

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

Real Gas Dry BTU 2331.5 8618.3

Water Sat. Gas Base BTU 2290.8 8340.8

Relative Density Real Gas 1.4100 5.3970

Compressibility Factor 0.9850

Ideal, Gross HV - Wet 2256.4

Ideal, Gross HV - Dry at 14.696 psia 2296.5

Net BTU Dry Gas - real gas 2143

Net BTU Wet Gas - real gas 2105

Data reviewed by: Eric Ramirez, Analyst

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)

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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

DEFINITIONS

Action 72464

DEFINITIONS

| | |
|---|--|
| Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241 | OGRID: 14744 |
| | Action Number: 72464 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

DEFINITIONS

| |
|--|
| For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application: <ul style="list-style-type: none">• this application's operator, hereinafter "this operator";• venting and/or flaring, hereinafter "vent or flare";• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";• the statements in (and/or attached to) this, hereinafter "the statements in this";• and the past tense will be used in lieu of mixed past/present tense questions and statements. |
|--|

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QUESTIONS

Action 72464

QUESTIONS

| | |
|---|--|
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| | Action Number: 72464 |
| | 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 | [fAPP2125651269] CREEDENCE 21/16 W10B FED 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 this vent or flare caused by an emergency or malfunction | Yes |
| Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event | Yes |
| Is this considered a submission for a vent or flare 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 at least 50 MCF of natural gas vented and/or flared during this event | Yes |
| Did this vent or flare 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 vent or flare 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 | 27 |
| Nitrogen (N2) percentage, if greater than one percent | 0 |
| 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. |

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QUESTIONS, Page 2

Action 72464

QUESTIONS (continued)

| | |
|---|--|
| Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241 | OGRID: 14744 |
| | Action Number: 72464 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

QUESTIONS

| Date(s) and Time(s) | |
|--|------------|
| Date vent or flare was discovered or commenced | 01/02/2022 |
| Time vent or flare was discovered or commenced | 02:00 AM |
| Time vent or flare was terminated | 03:00 PM |
| Cumulative hours during this event | 13 |

| 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: 59 Mcf Recovered: 0 Mcf Lost: 59 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 this vent or flare a result of downstream activity | No |
| Was notification of downstream activity received by this operator | Not answered. |
| Downstream OGRID that should have notified this operator | Not answered. |
| Date notified of downstream activity requiring this vent or flare | Not answered. |
| Time notified of downstream activity requiring this vent or flare | Not answered. |

| Steps and Actions to Prevent Waste | |
|--|--|
| For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control. | True |
| Please explain reason for why this event was beyond this operator's control | VRU malfunctioned |
| Steps taken to limit the duration and magnitude of vent or flare | Repaired VRU |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | Continued routine preventive maintenance and daily operational inspections |

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ACKNOWLEDGMENTS

Action 72464

ACKNOWLEDGMENTS

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| | Action Number: 72464 |
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ACKNOWLEDGMENTS

| | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC. |
| <input checked="" type="checkbox"/> | I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively. |
| <input checked="" type="checkbox"/> | I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act. |
| <input checked="" type="checkbox"/> | I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment. |
| <input checked="" type="checkbox"/> | I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations. |

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CONDITIONS

Action 72464

CONDITIONS

| | |
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| Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241 | OGRID: 14744 |
| | Action Number: 72464 |
| | Action Type: [C-129] Venting and/or Flaring (C-129) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|--|----------------|
| zlaount | 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. | 1/17/2022 |