



# Certificate of Analysis

Number: 6030-21110034-002A

**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. 05, 2021

Station Name: Glock 17-16 B3MP Battery	Sampled By: Michael Mirabal
Station Number: N/A	Sample Of: Gas Spot
Station Location: Mewbourne	Sample Date: 11/02/2021 09:10
Sample Point: VRT	Sample Conditions: 40 psig Ambient: 57 °F
Instrument: 6030_GC2 (Agilent GC-7890B)	Effective Date: 11/02/2021 09:10
Last Inst. Cal.: 09/13/2021 14:54 PM	Method: GPA 2286
Analyzed: 11/05/2021 07:30:10 by EJL	Cylinder No: 5030-01181

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+ 23.141
Nitrogen	4.899	4.89800	3.442		GPM TOTAL C3+ 15.538
Methane	16.772	16.76900	6.748		GPM TOTAL iC5+ 3.300
Carbon Dioxide	0.090	0.09000	0.099		
Ethane	28.111	28.10500	21.199	7.603	
Propane	27.273	27.26800	30.162	7.599	
Iso-butane	3.979	3.97800	5.800	1.317	
n-Butane	10.421	10.41900	15.191	3.322	
Iso-pentane	2.359	2.35900	4.269	0.873	
n-Pentane	2.402	2.40200	4.347	0.881	
Hexanes Plus	3.713	3.71200	8.743	1.546	
	<u>100.019</u>	<u>100.00000</u>	<u>100.000</u>	<u>23.141</u>	

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C6+</b>
Relative Density Real Gas	1.3949	3.2324
Calculated Molecular Weight	39.87	93.62
Compressibility Factor	0.9861	

**GPA 2172 Calculation:**

**Calculated Gross BTU per ft<sup>3</sup> @ 14.696 psia & 60°F**

Real Gas Dry BTU	2231	5041
Water Sat. Gas Base BTU	2192	4953
Ideal, Gross HV - Dry at 14.696 psia	2199.9	5041.4
Ideal, Gross HV - Wet	2161.5	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. 05, 2021

Station Name: Glock 17-16 B3MP Battery  
Station Number: N/A  
Station Location: Mewbourne  
Sample Point: VRT  
Analyzed: 11/05/2021 11:15:06 by EJР

Sampled By: Michael Mirabal  
Sample Of: Gas Spot  
Sample Date: 11/02/2021 09:10  
Sample Conditions: 40 psig  
Method: GPA 2286  
Cylinder No: 5030-01181

## Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia
Hydrogen Sulfide	0.000	0.000	
Nitrogen	4.898	3.442	
Methane	16.769	6.748	
Carbon Dioxide	0.090	0.099	
Ethane	28.105	21.199	7.603
Propane	27.268	30.162	7.599
Iso-Butane	3.978	5.800	1.317
n-Butane	10.419	15.191	3.322
Iso-Pentane	2.359	4.269	0.873
n-Pentane	2.402	4.347	0.881
i-Hexanes	0.828	1.748	0.334
n-Hexane	0.523	1.125	0.216
Benzene	0.087	0.171	0.025
Cyclohexane	0.353	0.741	0.121
i-Heptanes	0.724	1.693	0.297
n-Heptane	0.200	0.501	0.093
Toluene	0.087	0.200	0.030
i-Octanes	0.602	1.584	0.271
n-Octane	0.063	0.180	0.033
Ethylbenzene	0.003	0.009	0.001
Xylenes	0.052	0.142	0.020
i-Nonanes	0.130	0.396	0.068
n-Nonane	0.028	0.090	0.016
Decanes Plus	0.032	0.163	0.021
	<u>100.000</u>	<u>100.000</u>	<u>23.141</u>



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Nov. 05, 2021

Station Name: Glock 17-16 B3MP Battery  
Station Number: N/A  
Station Location: Mewbourne  
Sample Point: VRT  
Analyzed: 11/05/2021 11:15:06 by EJR

Sampled By: Michael Mirabal  
Sample Of: Gas Spot  
Sample Date: 11/02/2021 09:10  
Sample Conditions: 40 psig  
Method: GPA 2286  
Cylinder No: 5030-01181

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	39.87	145.28
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.696 psia &amp; 60°F</b>		
Real Gas Dry BTU	2230.9	7905.3
Water Sat. Gas Base BTU	2192.0	7659.5
Relative Density Real Gas	1.3949	5.0162
Compressibility Factor	0.9861	
Ideal, Gross HV - Wet	2161.5	
Ideal, Gross HV - Dry at 14.696 psia	2199.9	
Net BTU Dry Gas - real gas	2051	
Net BTU Wet Gas - real gas	2015	

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 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 63314

## QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 63314
	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	[fAPP2125740823] GLOCK 17/16 B3MP FED 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	17
Nitrogen (N2) percentage, if greater than one percent	5
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	11/16/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	09:00 AM
Cumulative hours during this event	9

**Measured or Estimated Volume of Vented or Flared Natural Gas**

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: Equipment Failure   Other (Specify)   Natural Gas Flared   Released: 53 Mcf   Recovered: 0 Mcf   Lost: 53 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 63314

**CONDITIONS**

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 63314
	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.	11/30/2021