



Certificate of Analysis

Number: 6030-21100279-008A

Artesia Laboratory

200 E Main St.
Artesia, NM 88210
Phone 575-746-3481Zach LaCount
Mewbourne Oil Company
4801 Business Park Blvd
Hobbs, NM 88240

Nov. 01, 2021

Station Name: Phoenix 21/22 Battery VRU

Station Number: N/A

Station Location: Mewbourne

Sample Point: VRU

Instrument: 6030_GC2 (Agilent GC-7890B)

Last Inst. Cal.: 09/13/2021 15:05 PM

Analyzed: 10/29/2021 08:06:11 by EJR

Sampled By: Chad Whitt

Sample Of: Gas Spot

Sample Date: 10/25/2021

Sample Conditions: 94.1 psig, @ 121.1 °F

Effective Date: 10/25/2021

Method: GPA 2286

Cylinder No: 1111-002222

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.00100	0.001		GPM TOTAL C2+ 21.027
Nitrogen	0.325	0.31700	0.237		GPM TOTAL C3+ 14.530
Methane	28.657	27.92100	11.979		GPM TOTAL iC5+ 2.746
Carbon Dioxide	0.248	0.24200	0.285		
Ethane	24.680	24.04600	19.337	6.497	
Propane	26.624	25.94000	30.592	7.220	
Iso-butane	4.168	4.06100	6.312	1.343	
n-Butane	10.379	10.11200	15.718	3.221	
Iso-pentane	2.228	2.17100	4.189	0.802	
n-Pentane	2.093	2.03900	3.934	0.747	
Hexanes Plus	3.233	3.15000	7.416	1.197	
	102.635	100.0000	100.000	21.027	

Calculated Physical Properties

Relative Density Real Gas

Total

1.3070

C6+

3.0333

Calculated Molecular Weight

37.39

87.85

Compressibility Factor

0.9873

GPA 2172 Calculation:

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

Real Gas Dry BTU

2165

4663

Water Sat. Gas Base BTU

2127

4581

Ideal, Gross HV - Dry at 14.696 psia

2137.6

4662.7

Ideal, Gross HV - Wet

2100.4

0.000

Comments: H2S Field Content 10 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: Phoenix 21/22 Battery VRU
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 11/01/2021 05:25:45 by EJRSampled By: Chad Whitt
Sample Of: Gas Spot
Sample Date: 10/25/2021
Sample Conditions: 94.1 psig, @ 121.1 °F
Method: GPA 2286
Cylinder No: 1111-002222

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia
Hydrogen Sulfide	0.001	0.001	
Nitrogen	0.317	0.237	
Methane	27.921	11.979	
Carbon Dioxide	0.242	0.285	
Ethane	24.046	19.337	6.497
Propane	25.940	30.592	7.220
Iso-Butane	4.061	6.312	1.343
n-Butane	10.112	15.718	3.221
Iso-Pentane	2.171	4.189	0.802
n-Pentane	2.039	3.934	0.747
i-Hexanes	0.786	1.761	0.315
n-Hexane	0.368	0.848	0.153
Benzene	0.418	0.872	0.118
Cyclohexane	0.450	1.020	0.155
i-Heptanes	0.515	1.268	0.205
n-Heptane	0.078	0.205	0.036
Toluene	0.172	0.426	0.058
i-Octanes	0.295	0.800	0.126
n-Octane	0.011	0.033	0.006
Ethylbenzene	0.011	0.029	0.004
Xylenes	0.015	0.039	0.005
i-Nonanes	0.028	0.092	0.014
n-Nonane	0.003	0.007	0.002
Decanes Plus	0.000	0.016	0.000
	100.000	100.000	21.027



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Nov. 01, 2021

Station Name: Phoenix 21/22 Battery VRU
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 11/01/2021 05:25:45 by EJRSampled By: Chad Whitt
Sample Of: Gas Spot
Sample Date: 10/25/2021
Sample Conditions: 94.1 psig, @ 121.1 °F
Method: GPA 2286
Cylinder No: 1111-002222

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	37.39	0.00
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	2165.1	0.000
Water Sat. Gas Base BTU	2127.4	0.000
Relative Density Real Gas	1.3070	0.0000
Compressibility Factor	0.9873	
Ideal, Gross HV - Wet	2100.4	
Ideal, Gross HV - Dry at 14.696 psia	2137.6	
Net BTU Dry Gas - real gas	1988	
Net BTU Wet Gas - real gas	1954	

Comments: H2S Field Content 10 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)

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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

DEFINITIONS

Action 223879

DEFINITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 223879
	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: • 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 223879

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 223879
	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	Unavailable.
Incident Facility	[fAPP2126049069] PHOENIX 21/22 B2KI 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 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 within 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	28
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 223879

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 223879
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/28/2023
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	24

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: 96 Mcf Recovered: 0 Mcf Lost: 96 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 223879

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 223879
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☒	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.
☒	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.
☒	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.
☒	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.
☒	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 223879

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 223879
	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.	6/6/2023