



Certificate of Analysis

Number: 6030-21100226-003A

Artesia Laboratory

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

Oct. 26, 2021

Station Name: Loco Hills 2/3 B2CD FC 1H

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: 10/26/2021 11:45:35 by KNF

Sampled By: Nathan Payne

Sample Of: Gas Spot

Sample Date: 10/21/2021 10:00

Sample Conditions: 92 psig Ambient: 59 °F

Effective Date: 10/21/2021 10:00

Method: GPA 2286

Cylinder No: 5030-02580

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.10000	0.131		GPM TOTAL C2+ 9.557
Nitrogen	2.630	2.70700	2.924		GPM TOTAL C3+ 5.795
Methane	62.092	63.91000	39.533		GPM TOTAL iC5+ 1.459
Carbon Dioxide	0.504	0.51900	0.881		
Ethane	13.628	14.02700	16.264	3.762	
Propane	9.354	9.62800	16.371	2.660	
Iso-butane	1.523	1.56800	3.514	0.515	
n-Butane	3.568	3.67200	8.230	1.161	
Iso-pentane	1.030	1.06000	2.949	0.389	
n-Pentane	0.849	0.87400	2.432	0.318	
Hexanes Plus	1.880	1.93500	6.771	0.752	
	97.058	100.00000	100.000	9.557	

Calculated Physical Properties

Relative Density Real Gas

Total

0.8999

C6+

3.1250

Calculated Molecular Weight

25.93

90.51

Compressibility Factor

0.9945

GPA 2172 Calculation:

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

Real Gas Dry BTU

1486

4812

Water Sat. Gas Base BTU

1460

4728

Ideal, Gross HV - Dry at 14.696 psia

1478.0

4812.0

Ideal, Gross HV - Wet

1452.2

0.000

Comments: H2S Field Content 0.1 %

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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Oct. 26, 2021

Station Name: Loco Hills 2/3 B2CD FC 1H
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 10/26/2021 15:18:11 by KNFSampled By: Nathan Payne
Sample Of: Gas Spot
Sample Date: 10/21/2021 10:00
Sample Conditions: 92 psig
Method: GPA 2286
Cylinder No: 5030-02580

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia
Hydrogen Sulfide	0.100	0.131	
Nitrogen	2.707	2.924	
Methane	63.910	39.533	
Carbon Dioxide	0.519	0.881	
Ethane	14.027	16.264	3.762
Propane	9.628	16.371	2.660
Iso-Butane	1.568	3.514	0.515
n-Butane	3.672	8.230	1.161
Iso-Pentane	1.060	2.949	0.389
n-Pentane	0.874	2.432	0.318
i-Hexanes	0.426	1.384	0.170
n-Hexane	0.181	0.601	0.075
Benzene	0.184	0.553	0.052
Cyclohexane	0.299	0.982	0.104
i-Heptanes	0.316	1.095	0.124
n-Heptane	0.054	0.208	0.025
Toluene	0.105	0.376	0.035
i-Octanes	0.231	0.927	0.101
n-Octane	0.021	0.095	0.011
Ethylbenzene	0.016	0.062	0.006
Xylenes	0.023	0.095	0.009
i-Nonanes	0.051	0.235	0.024
n-Nonane	0.011	0.053	0.006
Decanes Plus	0.017	0.105	0.010
	100.000	100.000	9.557



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Station Name: Loco Hills 2/3 B2CD FC 1H
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 10/26/2021 15:18:11 by KNFSampled By: Nathan Payne
Sample Of: Gas Spot
Sample Date: 10/21/2021 10:00
Sample Conditions: 92 psig
Method: GPA 2286
Cylinder No: 5030-02580

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	25.93	148.06
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	1486.1	8050.2
Water Sat. Gas Base BTU	1460.2	7866.2
Relative Density Real Gas	0.8999	5.1121
Compressibility Factor	0.9945	
Ideal, Gross HV - Wet	1452.2	
Ideal, Gross HV - Dry at 14.696 psia	1478.0	
Net BTU Dry Gas - real gas	1355	
Net BTU Wet Gas - real gas	1332	

Comments: H2S Field Content 0.1 %

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 190847

DEFINITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 190847
	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 190847

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 190847
	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	[fAPP2201236624] LOCO HILLS 2-4 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	64
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) 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 Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 190847

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 190847
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	02/23/2023
Time vent or flare was discovered or commenced	09:00 AM
Time vent or flare was terminated	06:00 PM
Cumulative hours during this event	9

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: 123 Mcf Recovered: 0 Mcf Lost: 123 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 190847

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 190847
	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 190847

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 190847
	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.	2/27/2023