



Certificate of Analysis

Number: 6030-21100297-015A

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. 04, 2021

Station Name: Big Sinks 1 W1AP Battery VRU
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Instrument: 6030_GC2 (Agilent GC-7890B)
Last Inst. Cal.: 09/13/2021 14:54 PM
Analyzed: 11/02/2021 09:05:14 by EJL

Sampled By: Cameron Rivera
Sample Of: Gas Spot
Sample Date: 10/27/2021 11:45
Sample Conditions: 87.6 psig
Effective Date: 10/27/2021 11:45
Method: GPA 2286
Cylinder No: 5030-02295

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+ 24.721
Nitrogen	0.107	0.10600	0.067		GPM TOTAL C3+ 20.136
Methane	20.478	20.35100	7.325		GPM TOTAL iC5+ 6.160
Carbon Dioxide	0.223	0.22200	0.219		
Ethane	16.976	16.87100	11.382	4.585	
Propane	23.191	23.04700	22.801	6.453	
Iso-butane	6.371	6.33100	8.256	2.105	
n-Butane	17.017	16.91100	22.053	5.418	
Iso-pentane	5.581	5.54600	8.978	2.061	
n-Pentane	5.987	5.95000	9.632	2.192	
Hexanes Plus	4.694	4.66500	9.287	1.907	
	100.625	100.00000	100.000	24.721	

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	1.5668	3.0528
Calculated Molecular Weight	44.57	88.42
Compressibility Factor	0.9815	

GPA 2172 Calculation:

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

Real Gas Dry BTU	2574	4808
Water Sat. Gas Base BTU	2529	4724
Ideal, Gross HV - Dry at 14.696 psia	2526.2	4807.6
Ideal, Gross HV - Wet	2482.2	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. 04, 2021

Station Name: Big Sinks 1 W1AP Battery VRU
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 11/03/2021 10:58:50 by EJH

Sampled By: Cameron Rivera
Sample Of: Gas Spot
Sample Date: 10/27/2021 11:45
Sample Conditions: 87.6 psig
Method: GPA 2286
Cylinder No: 5030-02295

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.696 psia
Hydrogen Sulfide	0.000	0.000	
Nitrogen	0.106	0.067	
Methane	20.351	7.325	
Carbon Dioxide	0.222	0.219	
Ethane	16.871	11.382	4.585
Propane	23.047	22.801	6.453
Iso-Butane	6.331	8.256	2.105
n-Butane	16.911	22.053	5.418
Iso-Pentane	5.546	8.978	2.061
n-Pentane	5.950	9.632	2.192
i-Hexanes	1.801	3.423	0.737
n-Hexane	1.070	2.071	0.446
Benzene	0.066	0.117	0.019
Cyclohexane	0.402	0.757	0.139
i-Heptanes	0.732	1.522	0.300
n-Heptane	0.170	0.382	0.080
Toluene	0.050	0.106	0.017
i-Octanes	0.325	0.769	0.144
n-Octane	0.017	0.040	0.009
Ethylbenzene	0.000	0.001	0.000
Xylenes	0.008	0.026	0.003
i-Nonanes	0.024	0.064	0.013
n-Nonane	0.000	0.005	0.000
Decanes Plus	0.000	0.004	0.000
	100.000	100.000	24.721



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Nov. 04, 2021

Station Name: Big Sinks 1 W1AP Battery VRU
Station Number: N/A
Station Location: Mewbourne
Sample Point: VRU
Analyzed: 11/03/2021 10:58:50 by EJRSampled By: Cameron Rivera
Sample Of: Gas Spot
Sample Date: 10/27/2021 11:45
Sample Conditions: 87.6 psig
Method: GPA 2286
Cylinder No: 5030-02295

Calculated Physical Properties	Total	C10+
Calculated Molecular Weight	44.57	0.00
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.696 psia & 60°F		
Real Gas Dry BTU	2573.9	0.000
Water Sat. Gas Base BTU	2529.0	0.000
Relative Density Real Gas	1.5668	0.0000
Compressibility Factor	0.9815	
Ideal, Gross HV - Wet	2482.2	
Ideal, Gross HV - Dry at 14.696 psia	2526.2	
Net BTU Dry Gas - real gas	2369	
Net BTU Wet Gas - real gas	2327	

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 61447

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 61447
	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	[fAPP2125632541] BIG SINKS 1/12 W1BO 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	20
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.

Date(s) and Time(s)	
Date venting and/or flaring was discovered or commenced	11/05/2021
Time venting and/or flaring was discovered or commenced	07:15 AM
Time venting and/or flaring was terminated	05:45 PM
Cumulative hours during this event	10

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: 116 Mcf Recovered: 0 Mcf Lost: 116 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

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Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 61447
	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