



Certificate of Analysis

Number: 6030-22080398-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Matt Buckles
Mack Energy
11344 Lovington Hwy
Artesia, NM 88210

Aug. 26, 2022

Station Name: Brainard Battery
Station Number: 5420025
Station Location: Redwood
Sample Point: Meter Run
Instrument: 6030_GC6 (Inficon GC-3000 Micro)
Last Inst. Cal.: 08/22/2022 0:00 AM
Analyzed: 08/26/2022 13:40:22 by KNF

Sampled By: Michael Mirabal
Sample Of: Gas Spot
Sample Date: 08/25/2022 14:42
Sample Conditions: 50 psig, @ 85 °F Ambient: 85 °F
Effective Date: 08/25/2022 14:42
Method: GPA-2261M
Cylinder No: 1111-007964

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia	
Hydrogen Sulfide	0.000	0.30000	0.442		GPM TOTAL C2+ 7.323
Nitrogen	1.216	1.20264	1.455		GPM TOTAL C3+ 3.500
Methane	71.972	71.21038	49.338		GPM TOTAL iC5+ 0.924
Carbon Dioxide	1.819	1.79926	3.420		
Ethane	14.423	14.27079	18.533	3.823	
Propane	6.450	6.38205	12.155	1.761	
Iso-butane	0.761	0.75324	1.891	0.247	
n-Butane	1.816	1.79688	4.511	0.568	
Iso-pentane	0.494	0.48877	1.523	0.179	
n-Pentane	0.553	0.54705	1.705	0.199	
Hexanes Plus	1.262	1.24894	5.027	0.546	
	100.766	100.00000	100.000	7.323	

Calculated Physical Properties

	Total	C6+
Relative Density Real Gas	0.8026	3.2176
Calculated Molecular Weight	23.15	93.19
Compressibility Factor	0.9956	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1329	5129
Water Sat. Gas Base BTU	1306	5040
Ideal, Gross HV - Dry at 14.696 psia	1322.9	5129.2
Ideal, Gross HV - Wet	1299.8	5039.7

Comments: H2O Content: 0 #/MMCF
H2S Field Content 0.3 %
CO2 0%

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Daily Gas Entry Detail Listing

Date	MCF	Calc MCF/Day	Energy	BTU Factor	Flow Press	Flow Temp	Base Press	Remarks
GasMtr	GM00000006	Brainard 11 Flare Mtr						
05/25/2023	388.29	388.29	388.29	1.0000	60.000	60.00	15.025	
Report Totals:	388.29	388.29						

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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 221071

DEFINITIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 88210	OGRID: 330211
	Action Number: 221071
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 221071

QUESTIONS

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	Action Number: 221071
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 Operator	[330211] Redwood Operating LLC
Incident Type	Flare
Incident Status	Closure Not Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2314534839] Brainard 11 CTB
Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.	

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	No
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	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	71
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	3,000
Carbon Dioxide (C02) percentage, if greater than one percent	2
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 221071

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/24/2023
Time vent or flare was discovered or commenced	07:30 PM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	4

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 Pipeline (Any) Natural Gas Flared Released: 499 Mcf Recovered: 0 Mcf Lost: 499 Mcf.
Other Released Details	Cause: Other (Specify) Released: 0 (Unknown Released Amount) Recovered: 0 Lost: 0 .
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
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	Yes
Was notification of downstream activity received by this operator	Yes
Downstream OGRID that should have notified this operator	[229153] DCP MIDSTREAM L.P.
Date notified of downstream activity requiring this vent or flare	05/24/2023
Time notified of downstream activity requiring this vent or flare	05:00 PM

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	DCP gave us an emergency notification with an estimated time frame of 8hrs. Redwood flared for 8hours and DCP was unable to fix the emergency situation within the 8 hour time frame. So Redwood shut-in and turned off producing wells.
Steps taken to limit the duration and magnitude of vent or flare	beyond our control
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Shut in production

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☒	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
☒	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
☒	I hereby certify the statements in this amending 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

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CONDITIONS

Created By	Condition	Condition Date
dweaver	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	5/30/2023