



Certificate of Analysis

Number: 6030-25081564-002A

Artesia Laboratory
 200 E Main St.
 Artesia, NM 88210
 Phone 575-746-3481

Matt Buckles
 Mack Energy
 11344 Lovington Hwy
 Artesia, NM 88210

Station Name: PICARD FED 1H – Meter Run
 Station Number: 1325067
 Sample Point: Meter Run
 Sampling Method:
 Heating Method:
 Method: GPA-2261M
 Cylinder No: 5030-00231
 Instrument: 6030_GC6 (Inficon GC-3000 Micro)
 Last Inst. Cal.: 09/02/2025 10:27:29
 Analyzed: 09/04/2025 11:30:57 by CDW

Report Date: 09/08/2025
 Sampled By: Rene Otero
 Sample Of: Gas
 Sample Type: Spot
 Sample Conditions: 46 psig, @ 77.9 °F Ambient: 72 °F
 Sample Date: 08/28/2025 07:50
 Received Date: 08/30/2025
 Login Date: 08/30/2025
 Effective Date: 09/01/2025
 Flow Rate:

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	1.000	1.525		GPM TOTAL C2+	6.416
Nitrogen	3.495	3.434	4.305		GPM TOTAL C3+	3.162
Methane	74.300	73.012	52.419		GPM TOTAL IC5+	0.766
Carbon Dioxide	0.250	0.246	0.485			
Ethane	12.338	12.124	16.315	3.254		
Propane	5.884	5.782	11.410	1.599		
Iso-butane	0.723	0.710	1.847	0.233		
n-Butane	1.812	1.781	4.633	0.564		
Iso-pentane	0.483	0.475	1.534	0.174		
n-Pentane	0.499	0.490	1.582	0.178		
Hexanes Plus	0.963	0.946	3.945	0.414		
	100.747	100.000	100.000	6.416		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7743	3.2176
Calculated Molecular Weight	22.34	93.19
Compressibility Factor	0.9961	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1280	5141
Water Sat. Gas Base BTU	1258	5052

Comments: Reran Sample Confirmed GC Analysis
 H2S Field Content: 1 %

Mostafa Alshamrani

Petroleum Chemist

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated. The test results apply to the sample as received.

Meter	Meter Name	meter Entry Da	MCF	Base Pressure	PB
Picard Flare - Low		09/29/2025	59.0000	14.730	@15.025
Pressure					57.84

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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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 510660

DEFINITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 510660
	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 510660

QUESTIONS

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QUESTIONS

Prerequisites <i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	Unavailable.
Incident Facility	[fAPP2414330773] Phoenix CTB

Determination of Reporting Requirements <i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
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.
<i>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.</i>	
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	Production Tank
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas <i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	73
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	1
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
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 510660

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	09/29/2025
Time vent or flare was discovered or commenced	04:00 AM
Time vent or flare was terminated	10:00 AM
Cumulative hours during this event	6

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 Production Tank Natural Gas Flared Released: 58 Mcf Recovered: 0 Mcf Lost: 58 Mcf.
Other Released Details	Not answered.
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	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	Due to a malfunction of the Vapor Recovery Unit, vapors were diverted to the low-pressure side of the flare system via a pressure relief device.
Steps taken to limit the duration and magnitude of vent or flare	The VRU is equipped with a dual-redundant low-pressure flare as a back-up, which functioned as designed to safely ignite the excess vapor.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Equipment Failure

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ACKNOWLEDGMENTS

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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

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	Action Number: 510660
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CONDITIONS

Created By	Condition	Condition Date
dweaver	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.	10/1/2025