



# Certificate of Analysis

Number: 6030-26033933-009A

**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:	CRANBOOK SC 1H -- Meter Run	Report Date:	04/06/2026
Station Number:	1325022	Sampled By:	Hunter Palma
Station Location:	Mack	Sample Of:	Gas
Sample Point:	Meter Run	Sample Type:	Spot
Sampling Company:	SPL	Sample Conditions:	105 psig, @ 114.5 °F Ambient: 99 °F
Heating Method:	N/A	Sample Date:	03/26/2026 01:15
Method:	GPA-2261M	Received Date:	03/27/2026
Cylinder No:	1111-000300	Login Date:	03/27/2026
Instrument:	6030_GC6 (Inficon GC-3000 Micro)	Effective Date:	04/01/2026
Last Inst. Cal.:	03/23/2026 09:59:42	Flow Rate:	149 MSCFD
Analyzed:	03/27/2026 13:17:57 by CDW	Sampling Method:	Purge/Fill

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	1.000	1.392		GPM TOTAL C2+	7.620
Nitrogen	6.095	6.054	6.927		GPM TOTAL C3+	3.555
Methane	62.046	61.627	40.379		GPM TOTAL iC5+	0.544
Carbon Dioxide	4.367	4.337	7.796			
Ethane	15.243	15.140	18.594	4.065		
Propane	7.826	7.773	14.000	2.150		
Iso-butane	0.839	0.833	1.978	0.274		
n-Butane	1.866	1.853	4.399	0.587		
Iso-pentane	0.455	0.452	1.332	0.166		
n-Pentane	0.400	0.397	1.170	0.144		
Hexanes Plus	0.538	0.534	2.033	0.234		
	99.675	100.000	100.000	7.620		

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C6+</b>
Relative Density Real Gas	0.8486	3.2176
Calculated Molecular Weight	24.48	93.19
Compressibility Factor	0.9957	

**GPA 2172 Calculation:**

**Calculated Gross BTU per ft<sup>3</sup> @ 14.73 psia & 60°F**

Real Gas Dry BTU	1249	5141
Water Sat. Gas Base BTU	1228	5052

**Comments:** H2S Field Content: 1 %

*Mostaq Ahammad*

Mostaq Ahammad, 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.

Property Header Code	Property Header Name	Date	System Product Code	Disposition	Volume	MMBTU	Volume Pressure Base	Vol @ 15.025
4343.01H.1	Cranbrook State Com 1H	04/26/2026	GAS	FLARE	129.9055	250.8316	14.6500	126.66

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Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

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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 579569

**DEFINITIONS**

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 579569
	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 579569

**QUESTIONS**

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	Action Number: 579569
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**QUESTIONS**

<b>Prerequisites</b>	
<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	[30-005-64360] CRANBROOK STATE COM #001H
Incident Facility	Unavailable.

<b>Determination of Reporting Requirements</b>	
<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

<b>Equipment Involved</b>	
Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b>	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	62
Nitrogen (N2) percentage, if greater than one percent	6
Hydrogen Sulfide (H2S) PPM, rounded up	1
Carbon Dioxide (CO2) percentage, if greater than one percent	4
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 (continued)**

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**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	04/26/2026
Time vent or flare was discovered or commenced	01:00 AM
Time vent or flare was terminated	06:00 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: Repair and Maintenance   Valve   Natural Gas Flared   Released: 127 Mcf   Recovered: 0 Mcf   Lost: 127 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	Yes
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	[707506] Phillips 66 - Houston Operations Center
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	Phillip 66- Unplanned Valve Maintenance
Steps taken to limit the duration and magnitude of vent or flare	Shut-In Well
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Shut-In Well



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ACKNOWLEDGMENTS

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**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	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 <b>complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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 an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	4/28/2026