



Certificate of Analysis

Number: 6030-22030530-002A

Artesia Laboratory

200 E Main St.
Artesia, NM 88210
Phone 575-746-3481Matt Buckles
Mack Energy
11344 Lovington Hwy
Artesia, NM 88210

Mar. 31, 2022

Station Name: Nossler Battery
 Station Number: 74649018
 Station Location: Mack
 Sample Point: Meter run
 Type of Sample: Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: Fill and Purge
 Sampling Company: SPL
 Analyzed: 03/31/2022 10:31:06 by ERG

Sampled By: Jason Bealer
 Sample Of: Gas Spot
 Sample Date: 03/26/2022 10:24
 Sample Conditions: 47 psig
 Effective Date: 03/26/2022 10:24
 Method: GPA-2261M
 Cylinder No: 9999-002265
 Instrument: 6030_GC6 (Inficon GC-3000 Micro)
 Last Inst. Cal.: 03/28/2022 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	0.00300	0.004		GPM TOTAL C2+	6.670
Nitrogen	3.902	3.93621	4.845		GPM TOTAL C3+	3.483
Methane	71.773	72.39796	51.038		GPM TOTAL iC5+	0.913
Carbon Dioxide	0.662	0.66747	1.291			
Ethane	11.768	11.87025	15.684	3.187		
Propane	5.929	5.98057	11.588	1.654		
Iso-butane	0.775	0.78135	1.996	0.257		
n-Butane	2.065	2.08259	5.319	0.659		
Iso-pentane	0.577	0.58213	1.846	0.214		
n-Pentane	0.607	0.61249	1.942	0.223		
Hexanes Plus	1.077	1.08598	4.447	0.476		
	99.135	100.00000	100.000	6.670		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7886	3.2176
Calculated Molecular Weight	22.76	93.19
Compressibility Factor	0.9960	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1297	5141
Water Sat. Gas Base BTU	1275	5052
Ideal, Gross HV - Dry at 14.73 psia	1291.7	5141.1
Ideal, Gross HV - Wet	1269.2	5051.6

Comments: H₂S Field Content 30 ppm
 Mcf/day 28.10

Hydrocarbon Laboratory Manager

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

Nosler 12 Federal Battery
Facility ID: fAPP2211035634
Location 32.851363 -103.832185 1800 FNL 300 FEL Sec 11-T175-R31E H

Reference ID	Prod Date	Entry Date	Disposition	Product	UOM	Volume	Calculated Vol*14.73/15.025	Energy Factor	Flow Temp	Gas Gravity	Base Temp	Base Press	Flow Press	Run Hours	Meter Begin	Meter End	Begin Date	End Date	Last Updated
	8/23/2023	8/24/2023	FLARE	GAS	MCF	578	567	1	75	0.6	60	14.73	47	24	3183	3761	8/23/2023 0:00	8/23/2023 0:00	Justus Wilson

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District IV
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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 257705

DEFINITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 257705
	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 257705

QUESTIONS

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	Action Number: 257705
	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	[13837] MACK ENERGY CORP
Incident Type	Flare
Incident Status	Closure Not Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2211035634] Nosler 12 Federal Battery

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	Yes
Is this considered a submission for a vent or flare event	Yes, major 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 within 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	72
Nitrogen (N2) percentage, if greater than one percent	4
Hydrogen Sulfide (H2S) PPM, rounded up	30
Carbon Dioxide (CO2) 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 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 257705

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	08/23/2023
Time vent or flare was discovered or commenced	10:00 AM
Time vent or flare was terminated	06:00 PM
Cumulative hours during this event	8

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Midstream Emergency Maintenance Pipeline (Any) Natural Gas Flared Released: 567 Mcf Recovered: 0 Mcf Lost: 567 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	Yes
Downstream OGRID that should have notified this operator	[221115] FRONTIER FIELD SERVICES, LLC
Date notified of downstream activity requiring this vent or flare	08/22/2023
Time notified of downstream activity requiring this vent or flare	02:40 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	Durango Midstream gave us an emergency/malfunction notification. Mack Energy Corp. flared for 8 hours, Durango Midstream was able to repair the emergency/malfunction situation with the 8hr time frame. Mack Energy Corp returned to production
Steps taken to limit the duration and magnitude of vent or flare	Stay in communication with Durango Midstream
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	beyond our control

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ACKNOWLEDGMENTS

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	13837
	Action Number:
	257705
	Action Type:
	[C-129] Amend Venting and/or Flaring (C-129A)

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.	8/25/2023