



Certificate of Analysis

Number: 6030-20120059-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Matt Erickson
Marathon Oil Corporation
4111 S. Tidwell
Carlsbad, NM 88220

Dec. 09, 2020

Station Name: Southern Comfort 4,7,8 Sales Check 2
Station Number: 23282SC
Station Location: Marathon
Sample Point: RGA
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge
Sampling Company: SPL
Analyzed: 12/09/2020 14:06:47 by KNF

Sampled By: Jonah Reza
Sample Of: Gas Spot
Sample Date: 12/08/2020 01:54
Sample Conditions: 63.12 psig, @ 98.2 °F Ambient: 64 °F
Effective Date: 12/08/2020 01:54
Method: GPA-2261M
Cylinder No: 1111-002507
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 12/07/2020 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.00025	0.000		GPM TOTAL C2+	5.804
Nitrogen	0.839	0.83905	1.101		GPM TOTAL C3+	2.860
Methane	78.808	78.82232	59.213		GPM TOTAL iC5+	0.742
Carbon Dioxide	0.124	0.12372	0.255			
Ethane	11.029	11.03120	15.532	2.944		
Propane	4.876	4.87669	10.070	1.341		
Iso-butane	0.770	0.76994	2.096	0.251		
n-Butane	1.672	1.67240	4.552	0.526		
Iso-pentane	0.464	0.46418	1.568	0.169		
n-Pentane	0.505	0.50469	1.705	0.183		
Hexanes Plus	0.895	0.89556	3.908	0.390		
	99.982	100.00000	100.000	5.804		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7398	3.2176
Calculated Molecular Weight	21.36	93.19
Compressibility Factor	0.9963	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1279	5113
Water Sat. Gas Base BTU	1257	5024
Ideal, Gross HV - Dry at 14.65 psia	1274.4	5113.2
Ideal, Gross HV - Wet	1252.1	5023.7

Comments: H2S Field Content 2.5 ppm
Mcf/day 2545.309

Hydrocarbon Laboratory Manager

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

Flaring/Venting Event Volume (MCF):	62.97
Flare or vent:	Flare
Date:	8/12/2021
Time discovered:	8:03 PM
Time terminated:	11:20 PM
Total Duration (hrs):	3:17

District I1625 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 44282

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 5555 San Felipe St. Houston, TX 77056	OGRID: 372098
	Action Number: 44282
	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	[30-015-46202] SOUTHERN COMFORT 36 WD STATE #008H
Incident Facility	Not answered.

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	No
Is this considered a submission for a notification of a major venting and/or flaring	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	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	79
Nitrogen (N2) percentage, if greater than one percent	1
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	08/12/2021
Time venting and/or flaring was discovered or commenced	08:03 PM
Time venting and/or flaring was terminated	11:20 PM
Cumulative hours during this event	3

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
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Natural Gas Flared (Mcf) Details	Cause: High Line Pressure Producing Well Natural Gas Flared Released: 63 Mcf Recovered: 0 Mcf Lost: 63 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 or is this venting and/or flaring a result of downstream activity	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	High Line Pressure - No Notification Received
Steps taken to limit the duration and magnitude of venting and/or flaring	no notification was provided as required per NMAC 19.15.28.8 (D). As soon as flaring was identified, immediate actions were taken to limit magnitude of flaring/venting.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Increased Back Pressure Relief Valve to limit potential flaring during downstream upsets but still maintain safety at the facility

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CONDITIONS

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	Action Number: 44282
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
icastro	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.	8/24/2021