



## Certificate of Analysis

Number: 6030-20110148-007A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Nov. 24, 2020

Station Name: EI Presidente 3H Production  
Station Number: 17873GP  
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: 11/24/2020 11:39:15 by KNF

Sampled By: Jonah Reza  
Sample Of: Gas Spot  
Sample Date: 11/17/2020 08:30  
Sample Conditions: 149.85 psig, @ 72.49 °F Ambient: 54 °F  
Effective Date: 11/17/2020 08:30  
Method: GPA-2261M  
Cylinder No: 5030-01810  
Instrument: 6030\_GC2 (Agilent GC-7890B)  
Last Inst. Cal.: 08/25/2020 8:12 AM

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.00000	0.000		GPM TOTAL C2+	5.604
Nitrogen	0.979	0.99940	1.340		GPM TOTAL C3+	2.544
Methane	77.436	79.04939	60.694		GPM TOTAL iC5+	0.469
Carbon Dioxide	0.087	0.08881	0.187			
Ethane	11.231	11.46500	16.500	3.060		
Propane	4.906	5.00822	10.570	1.377		
Iso-butane	0.681	0.69519	1.934	0.227		
n-Butane	1.467	1.49757	4.166	0.471		
Iso-pentane	0.348	0.35525	1.227	0.130		
n-Pentane	0.360	0.36750	1.269	0.133		
Hexanes Plus	0.464	0.47367	2.113	0.206		
	97.959	100.00000	100.000	5.604		

## Calculated Physical Properties

Relative Density Real Gas	Total	C6+
Calculated Molecular Weight	0.7237	3.2176
Compressibility Factor	20.89	93.19
	0.9965	

## GPA 2172 Calculation:

Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia & 60°F

Real Gas Dry BTU	1253	5113
Water Sat. Gas Base BTU	1231	5024
Ideal, Gross HV - Dry at 14.65 psia	1248.1	5113.2
Ideal, Gross HV - Wet	1226.2	5023.7

**Comments:** H2S Field Content 0 ppm  
Mcf/day 1117.462

Hydrocarbon Laboratory Manager

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

Facility Name:	El Presidente 3H, 5H, 6H, 10H
Flaring/Venting Event Volume (MCF):	141.35
Flare or vent:	Flare
Time discovered:	6/26/21 11:57 AM
Time terminated:	6/26/21 10:36 PM
Total Duration (hrs):	10:39

**District I**

1625 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 35028

**QUESTIONS**

Operator: MARATHON OIL PERMIAN LLC 5555 San Felipe St. Houston, TX 77056	OGRID: 372098 Action Number: 35028 Action Type: [C-129] Venting and/or Flaring (C-129)
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**QUESTIONS****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 or flaring caused by an emergency or malfunction	Yes
Did or will this venting or flaring last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a notification of a major venting or flaring	Yes, minor venting or flaring of natural gas.
The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting or flaring that is or may be a major or minor release under 19.13.29.7 NMAC	
Was there or will there be at least 50 MCF of natural gas vented or flared during this event	Yes
Did this venting 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

**Unregistered Facility Site**

Please provide the facility details, if the venting or flaring occurred or is occurring at a facility that does not have an Facility ID (##) yet.

Facility or Site Name	El Presidente 3H, 5H, 6H, 10H CTB
Facility Type	Tank Battery - (TB)

**Equipment Involved**

Primary Equipment Involved	Well
Additional details for Equipment Involved. Please specify	Flare

**Representative Compositional Analysis of Vented or Flared Natural Gas**

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	61
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 or flaring was discovered or commenced	06/26/2021
Time venting or flaring was discovered or commenced	11:57 AM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	06/26/2021
Time venting or flaring was terminated	10:36 PM
Total duration of venting or flaring in hours, if venting or flaring has terminated	11
Longest duration of cumulative hours within any 24-hour period during this event	11

**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   Well   Natural Gas Flared   Spilled: 141 Mcf   Recovered: 0 Mcf   Lost: 141 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 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 or flaring a result of downstream activity	Yes
Date notified of downstream activity requiring this venting or flaring	Not answered.
Time notified of downstream activity requiring this venting or flaring	Not answered.

**Steps and Actions to Prevent Waste**

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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	Downstream malfunction of gas takeaway with no notification received from provider.
Steps taken to limit the duration and magnitude of venting or flaring	Managed observed high line pressure to best ability to limit flaring. Unknown takeaway capacity caused intermittent flaring.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	Increased back pressure relief valve to flare to limit potential flaring during downstream upsets, but still maintain safety at the facility.

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CONDITIONS  
  
Action 35028

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 5555 San Felipe St. Houston, TX 77056	OGRID: 372098
	Action Number: 35028
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
system	If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event.	7/7/2021