



## Certificate of Analysis

Number: 6030-24010010-018A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Michael Gordon  
Marathon Oil Corporation  
4111 S. Tidwell  
Carlsbad, NM 88220

Jan. 08, 2024

Station Name: HONEY MUSTARD 22 FED COM CTB GSC  
Station Number: 31666GSC  
Cylinder No: 5030-04106  
Instrument: 6030\_GC6 (Inficon GC-3000 Micro)  
Last Inst. Cal.: 01/02/2024 0:00 AM  
Analyzed: 01/08/2024 10:34:28 by EBH

Sampled By: S.L.  
Sample Of: Gas Spot  
Sample Date: 12/28/2023 02:30  
Sample Conditions: 112 psig, @ 94 °F Ambient: 55 °F  
Effective Date: 12/28/2023 02:30  
Flow Rate: 2363 MSCFD  
Method: GPA-2261M

## Analytical Data

| Components       | Un-normalized<br>Mol % | Mol. %   | Wt. %    | GPM at<br>14.65 psia |                      |
|------------------|------------------------|----------|----------|----------------------|----------------------|
| Hydrogen Sulfide | 0.0000                 | 0.0005   | 0.0008   |                      | GPM TOTAL C2+ 6.632  |
| Nitrogen         | 1.0837                 | 1.0749   | 1.3675   |                      | GPM TOTAL C3+ 3.339  |
| Methane          | 76.1613                | 75.5457  | 55.0399  |                      | GPM TOTAL iC5+ 0.655 |
| Carbon Dioxide   | 0.0741                 | 0.0735   | 0.1469   |                      |                      |
| Ethane           | 12.4330                | 12.3325  | 16.8409  | 3.293                |                      |
| Propane          | 6.3972                 | 6.3455   | 12.7074  | 1.745                |                      |
| Iso-butane       | 0.8563                 | 0.8494   | 2.2421   | 0.277                |                      |
| n-Butane         | 2.1212                 | 2.1041   | 5.5540   | 0.662                |                      |
| Iso-pentane      | 0.4789                 | 0.4750   | 1.5564   | 0.173                |                      |
| n-Pentane        | 0.5590                 | 0.5545   | 1.8169   | 0.201                |                      |
| Hexanes Plus     | 0.6497                 | 0.6444   | 2.7272   | 0.281                |                      |
|                  | 100.8144               | 100.0000 | 100.0000 | 6.632                |                      |

## Calculated Physical Properties

|                             |              |            |
|-----------------------------|--------------|------------|
|                             | <b>Total</b> | <b>C6+</b> |
| Relative Density Real Gas   | 0.7630       | 3.2176     |
| Calculated Molecular Weight | 22.02        | 93.19      |
| Compressibility Factor      | 0.9960       |            |

## GPA 2172 Calculation:

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

|                                     |        |        |
|-------------------------------------|--------|--------|
| Real Gas Dry BTU                    | 1313   | 5113   |
| Water Sat. Gas Base BTU             | 1290   | 5024   |
| Ideal, Gross HV - Dry at 14.65 psia | 1307.4 | 5113.2 |
| Ideal, Gross HV - Wet               | 1284.5 | 5023.7 |

Comments: H2S Field Content 5 ppm

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): | 67         |
| Flare or vent:                      | Vent       |
| Date:                               | 2/12/2024  |
| Time discovered:                    | 3:38:00 AM |
| Time terminated:                    | 1:05:00 PM |
| Total Duration (hrs):               | 9.27       |

**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

DEFINITIONS

Action 321420

DEFINITIONS

|                                                                                        |                                                        |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>MARATHON OIL PERMIAN LLC<br>990 Town & Country Blvd.<br>Houston, TX 77024 | OGRID:<br>372098                                       |
|                                                                                        | Action Number:<br>321420                               |
|                                                                                        | Action Type:<br>[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: <ul style="list-style-type: none"><li>this application's operator, hereinafter "this operator";</li><li>venting and/or flaring, hereinafter "vent or flare";</li><li>any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**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 321420

QUESTIONS

|                                                                                        |                                                        |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>MARATHON OIL PERMIAN LLC<br>990 Town & Country Blvd.<br>Houston, TX 77024 | OGRID:<br>372098                                       |
|                                                                                        | Action Number:<br>321420                               |
|                                                                                        | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

QUESTIONS

|                                                                                                                                                                                            |                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Prerequisites</b><br>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                                                                                                                                                                              | Unavailable.                                 |
| Incident Facility                                                                                                                                                                          | [fAPP2233335049] HONEY MUSTARD 22 FED COM TB |

|                                                                                                                                                                                                                                                                                     |                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>Determination of Reporting Requirements</b><br>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, 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 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 withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence                                                                                                      | No                                                |

|                                                           |                                                  |
|-----------------------------------------------------------|--------------------------------------------------|
| <b>Equipment Involved</b>                                 |                                                  |
| Primary Equipment Involved                                | Tank (Any)                                       |
| Additional details for Equipment Involved. Please specify | VRU went down and had to get mechanic out to fix |

|                                                                                                                                                             |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Representative Compositional Analysis of Vented or Flared Natural Gas</b><br>Please provide the mole percent for the percentage questions in this group. |               |
| Methane (CH4) percentage                                                                                                                                    | 76            |
| Nitrogen (N2) percentage, if greater than one percent                                                                                                       | 1             |
| Hydrogen Sulfide (H2S) PPM, rounded up                                                                                                                      | 0             |
| Carbon Dioxide (C02) 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 Sufide (H2S) PPM quality requirement                                                                                                               | Not answered. |
| Carbon Dioxide (C02) percentage quality requirement                                                                                                         | Not answered. |
| Oxygen (O2) percentage quality requirement                                                                                                                  | Not answered. |

**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, Page 2  
  
Action 321420

QUESTIONS (continued)

|                                                                                        |                                                        |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>MARATHON OIL PERMIAN LLC<br>990 Town & Country Blvd.<br>Houston, TX 77024 | OGRID:<br>372098                                       |
|                                                                                        | Action Number:<br>321420                               |
|                                                                                        | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

QUESTIONS

| Date(s) and Time(s)                            |            |
|------------------------------------------------|------------|
| Date vent or flare was discovered or commenced | 02/12/2024 |
| Time vent or flare was discovered or commenced | 03:38 AM   |
| Time vent or flare was terminated              | 01:05 PM   |
| Cumulative hours during this event             | 9          |

| Measured or Estimated Volume of Vented or Flared Natural Gas              |                                                                                                                       |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Natural Gas Vented (Mcf) Details                                          | Cause: Equipment Failure   Production Tank   Natural Gas Vented   Released: 67 Mcf   Recovered: 0 Mcf   Lost: 67 Mcf. |
| Natural Gas Flared (Mcf) Details                                          | Not answered.                                                                                                         |
| 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                                                      | VRU went down and needed a 3rd party contractor to fix                                                           |
| Steps taken to limit the duration and magnitude of vent or flare                                                                 | As soon as flaring/venting due to an equipment failure was identified, repairs were made as soon as practicable. |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare                                                | As soon as the equipment failure was found, repairs were made.                                                   |



**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

ACKNOWLEDGMENTS  
  
Action 321420

ACKNOWLEDGMENTS

|                                                                                        |                                                        |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>MARATHON OIL PERMIAN LLC<br>990 Town & Country Blvd.<br>Houston, TX 77024 | OGRID:<br>372098                                       |
|                                                                                        | Action Number:<br>321420                               |
|                                                                                        | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

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.                                                                                                                          |

**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**

CONDITIONS

Action 321420

CONDITIONS

|                                                                                        |                                                        |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>MARATHON OIL PERMIAN LLC<br>990 Town & Country Blvd.<br>Houston, TX 77024 | OGRID:<br>372098                                       |
|                                                                                        | Action Number:<br>321420                               |
|                                                                                        | Action Type:<br>[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. | 3/7/2024       |