# Certificate of Analysis

Number: 6030-24010171-001A

**Artesia Laboratory**
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Jan. 17, 2024

| | | | |
|---|---|---|---|
| Field: | PERMIAN_RESOURCES | Sampled By: | Mike Armijo |
| Station Name: | Falcon Ridge CGL(BTEX) | Sample Of: | Gas Composite |
| Station Number: | N/A | Sample Date: | 01/15/2024 10:15 |
| Station Location: | Dehy | Sample Conditions: | 677 psig, @ 58 °F Ambient: 14 °F |
| Sample Point: | Inlet Dehy | Effective Date: | 01/15/2024 10:15 |
| Formation: | NEW_MEXICO | Flow Rate: | N/A |
| County: | Lea | Method: | GPA-2261M |
| Well Name: | N/A | Cylinder No: | 5030-04006 |
| Type of Sample: : | Spot-Cylinder | Instrument: | 70104251 (Inficon GC-MicroFusion) |
| Heat Trace Used: | N/A | Last Inst. Cal.: | 01/15/2024 0:00 AM |
| Sampling Method: : | Fill and Purge | Analyzed: | 01/16/2024 13:42:44 by EBH |
| Sampling Company: : | SPL | | |

## Analytical Data

| Components | Un-normalized Mol % | Mol. % | Wt. % | GPM at 14.65 psia |
|---|---|---|---|---|
| Hydrogen Sulfide | 0.0000 | 0.0000 | 0.0000 | |
| Nitrogen | 1.2966 | 1.3215 | 1.6634 | |
| Carbon Dioxide | 1.0738 | 1.0944 | 2.1642 | |
| Methane | 71.6817 | 73.0563 | 52.6616 | |
| Ethane | 12.7892 | 13.0345 | 17.6108 | 3.480 |
| Propane | 7.5875 | 7.7330 | 15.3218 | 2.127 |
| Iso-Butane | 0.8655 | 0.8821 | 2.3037 | 0.288 |
| n-Butane | 1.9446 | 1.9819 | 5.1759 | 0.624 |
| Iso-Pentane | 0.3698 | 0.3769 | 1.2219 | 0.138 |
| n-Pentane | 0.3077 | 0.3136 | 1.0166 | 0.113 |
| Hexanes | 0.1225 | 0.1248 | 0.4832 | 0.051 |
| Heptanes | 0.0624 | 0.0636 | 0.2864 | 0.029 |
| Octanes | 0.0153 | 0.0156 | 0.0801 | 0.008 |
| Nonanes Plus | 0.0018 | 0.0018 | 0.0104 | 0.001 |
| | 98.1184 | 100.0000 | 100.0000 | 6.859 |

| Calculated Physical Properties | Total | C9+ |
|---|---|---|
| Calculated Molecular Weight | 22.26 | 128.26 |
| Compressibility Factor | 0.9960 | |
| Relative Density Real Gas | 0.7712 | 4.4283 |
| **GPA 2172 Calculation:** | | |
| **Calculated Gross BTU per ft³ @ 14.65 psia & 60°F** | | |
| Real Gas Dry BTU | 1295.7 | 6974.4 |
| Water Sat. Gas Base BTU | 1273.6 | 6852.4 |
| Ideal, Gross HV - Dry at 14.65 psia | 1290.6 | 6974.4 |
| Ideal, Gross HV - Wet | 1268.0 | 6852.4 |

**Comments:** H2S Field Content N/A ppm
FMP/LSE N/A,

Hydrocarbon Laboratory Manager

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

# UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

**Facility:** Falcon Ridge CGL **Flare Date:** 09/13/2024

**Duration of Event:** 3 Hours 55 Minutes **MCF Flared:** 110

**Start Time:** 09:39 AM **End Time:** 01:34 PM

**Cause:** Emergency Flare > Automation – Planned > Valkyrie System Tie-In

**Method of Flared Gas Measurement:** Gas Flare Meter

## 1. Reason why this event was beyond Operator's control:

In this case, several wells were shut-in when Oxy's construction and automation teams were working together to tie-in the Valkyrie system to the facility. During the tie-in of the Valkyrie system, the compression equipment lost fuel due to a shut fuel valve on Train 2 and with the loss of the fuel pressure, this in turn, prompted the compression equipment to malfunction suddenly and unexpectedly several times, during this install, which in turn triggered brief flaring events to occur. The occurrence of this event was beyond OXY's control. OXY took all possible measures to manage and reduce emissions to the greatest extent.

## 2. Steps Taken to limit duration and magnitude of venting or flaring:

In this case, several wells were shut-in when Oxy's construction and automation teams were working together to tie-in the Valkyrie system to the facility. During the tie-in of the Valkyrie system, the compression equipment lost fuel due to a shut fuel valve on Train 2 and with the loss of the fuel pressure, this in turn, prompted the compression equipment to malfunction suddenly and unexpectedly several times, during this install, which in turn triggered brief flaring events to occur. As soon as intermittent flaring occurred, field personnel quickly inspected the compression equipment, cleared the malfunction alarms, and restarted the equipment once fuel pressure was restored. The occurrence of this event was beyond OXY's control. OXY took all possible measures to manage and reduce emissions to the greatest extent.

## 3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of flaring from maintenance or equipment upgrades, as Oxy continually strives to maintain and operate all its equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place.

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**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

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>388975 |
| | 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:

- 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 388975

## QUESTIONS

| | |
|---|---|
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**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 | *Unavailable.* |
| Incident Facility | **[fAPP2333082512] Falcon Ridge CGL CS** |

| **Determination of Reporting Requirements** | |
|---|---|
| *Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional 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 | No |
| 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 |

| **Equipment Involved** | |
|---|---|
| Primary Equipment Involved | Other (Specify) |
| Additional details for Equipment Involved. Please specify | Emergency Flare > Automation – Planned > Valkyrie System Tie-In |

| **Representative Compositional Analysis of Vented or Flared Natural Gas** | |
|---|---|
| *Please provide the mole percent for the percentage questions in this group.* | |
| Methane (CH4) percentage | 73 |
| 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 | 1 |
| Oxygen (02) 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 (02) 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 | 09/13/2024 |
| Time vent or flare was discovered or commenced | 09:39 AM |
| Time vent or flare was terminated | 01:34 PM |
| Cumulative hours during this event | 4 |

| **Measured or Estimated Volume of Vented or Flared Natural Gas** | |
|---|---|
| Natural Gas Vented (Mcf) Details | *Not answered.* |
| Natural Gas Flared (Mcf) Details | Cause: Other \| Other (Specify) \| Natural Gas Flared \| Released: 110 Mcf \| Recovered: 0 Mcf \| Lost: 110 Mcf. |
| Other Released Details | *Not answered.* |
| Additional details for Measured or Estimated Volume(s). Please specify | Gas Flare Meter |
| 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 | In this case, several wells were shut-in when Oxy's construction and automation teams were working together to tie-in the Valkyrie system to the facility. During the tie-in of the Valkyrie system, the compression equipment lost fuel due to a shut fuel valve on Train 2 and with the loss of the fuel pressure, this in turn, prompted the compression equipment to malfunction suddenly and unexpectedly several times, during this install, which in turn triggered brief flaring events to occur. The occurrence of this event was beyond OXY's control. OXY took all possible measures to manage and reduce emissions to the greatest extent. |
| Steps taken to limit the duration and magnitude of vent or flare | In this case, several wells were shut-in when Oxy's construction and automation teams were working together to tie-in the Valkyrie system to the facility. During the tie-in of the Valkyrie system, the compression equipment lost fuel due to a shut fuel valve on Train 2 and with the loss of the fuel pressure, this in turn, prompted the compression equipment to malfunction suddenly and unexpectedly several times, during this install, which in turn triggered brief flaring events to occur. As soon as intermittent flaring occurred, field personnel quickly inspected the compression equipment, cleared the malfunction alarms, and restarted the equipment once fuel pressure was restored. The occurrence of this event was beyond OXY's control. OXY took all possible measures to manage and reduce emissions to the greatest extent. |
| | Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of flaring from maintenance or equipment upgrades, as Oxy continually strives |

| | |
|---|---|
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | to maintain and operate all its equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. |

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## ACKNOWLEDGMENTS

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**ACKNOWLEDGMENTS**

| | |
|---|---|
| ☑ | I acknowledge that I am authorized to submit a *Venting and/or Flaring* (C-129) report on behalf of this operator and understand that this report can be **a complete** C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC. |
| ☑ | 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. |
| ☑ | 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. |
| ☑ | 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

Action 388975

## CONDITIONS

| | |
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**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| shelbyschoepf | 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. | 10/1/2024 |