**Natural Gas Analysis Report**
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

| | Sample Information |
|---|---|
| Sample Name | 14. GUACAMOLE 24-23 FED 11H, 12H INLET |
| Technician | ANTHONY DOMINGUEZ |
| Analyzer Make & Model | INFICON MICRO GC |
| Last Calibration/Validation Date | 03-02-2023 |
| Meter Number | NA |
| Air temperature | 64 |
| Flow Rate (MCF/Day) | NA |
| Heat Tracing | Heated Hose & Gasifier |
| Sample description/mtr name | 14. GUACAMOLE 24-23 FED 11H, 12H INLET |
| Sampling Method | fill and empty |
| Operator | OCCIDENTAL PETROLEUM |
| State | New Mexico |
| Region Name | PERMIAN_RESOURCES |
| Asset | NEW MEXICO |
| System | WEST |
| FLOC | NA |
| Sample Sub Type | NA |
| Sample Name Type | NA |
| Vendor | AKM MEASUREMENT |
| Cylinder # | AKM-12 |
| Sampled by | JONATHAN ALDRICH |
| Sample date | 3-1-2023 |
| Analyzed date | 3-2-2023 |
| Method Name | C9 |
| Injection Date | 2023-03-02 11:39:11 |
| Report Date | 2023-03-02 11:44:16 |
| EZReporter Configuration File | 1-16-2023 OXY GPA C9+ H2S #2.cfgx |
| Source Data File | 567d0df1-ae9c-4994-a5eb-15895d8b6bdb |
| NGA Phys. Property Data Source | GPA Standard 2145-16 (FPS) |
| Data Source | INFICON Fusion Connector |

## Component Results

| Component Name | Peak Area | Raw Amount | Response Factor | Norm Mole% | Gross HV (Dry) (BTU / Ideal cu.ft.) | Relative Gas Density (Dry) | GPM (Dry) (Gal. / 1000 cu.ft.) | |
|---|---|---|---|---|---|---|---|---|
| Nitrogen | 31226.1 | 1.7599 | 0.00005636 | 1.7604 | 0.0 | 0.01703 | 0.194 | |
| Methane | 1030355.6 | 75.4898 | 0.00007327 | 75.5140 | 764.5 | 0.41827 | 12.849 | |
| CO2 | 6979.5 | 0.3299 | 0.00004726 | 0.3300 | 0.0 | 0.00501 | 0.057 | |
| Ethane | 261346.6 | 11.8931 | 0.00004551 | 11.8969 | 211.0 | 0.12351 | 3.193 | |
| H2S | 0.0 | 0.0000 | 0.00000000 | 0.0000 | 0.0 | 0.00000 | 0.000 | |
| Propane | 180334.6 | 5.9093 | 0.00003277 | 5.9112 | 149.1 | 0.09000 | 1.635 | |
| iso-butane | 75660.1 | 0.8409 | 0.00001111 | 0.8411 | 27.4 | 0.01688 | 0.276 | |
| n-Butane | 179454.8 | 1.9712 | 0.00001098 | 1.9718 | 64.5 | 0.03957 | 0.624 | |
| iso-pentane | 50082.8 | 0.4865 | 0.00000971 | 0.4866 | 19.5 | 0.01212 | 0.179 | |
| n-Pentane | 59378.4 | 0.5622 | 0.00000947 | 0.5624 | 22.6 | 0.01401 | 0.205 | |
| hexanes | 46029.0 | 0.3497 | 0.00000760 | 0.3498 | 16.7 | 0.01041 | 0.144 | |
| heptanes | 43806.0 | 0.2736 | 0.00000624 | 0.2737 | 15.1 | 0.00947 | 0.127 | |
| octanes | 16838.0 | 0.0939 | 0.00000558 | 0.0939 | 5.9 | 0.00370 | 0.048 | |
| nonanes+ | 1321.0 | 0.0082 | 0.00000619 | 0.0082 | 0.6 | 0.00036 | 0.005 | |
| Total: | | 99.9681 | | 100.0000 | 1296.8 | 0.76035 | 19.536 | |

## Results Summary

| Result | Dry | Sat. | |
|---|---|---|---|
| Total Un-Normalized Mole% | 99.9681 | | |
| Pressure Base (psia) | 14.730 | | |
| Temperature Base (Deg. F) | 60.00 | | |
| Flowing Temperature (Deg. F) | 0.0 | | |
| Flowing Pressure (psig) | 37.0 | | |

| Result | Dry | Sat. |
|---|---|---|
| Gross Heating Value (BTU / Ideal cu.ft.) | 1296.8 | 1274.2 |
| Gross Heating Value (BTU / Real cu.ft.) | 1301.9 | 1279.8 |
| Relative Density (G), Real | 0.7630 | 0.7609 |

## Monitored Parameter Report

| Parameter | Value | Lower Limit | Upper Limit | Status |
|---|---|---|---|---|
| Total un-normalized amount | 99.9681 | 97.0000 | 103.0000 | Pass |

# UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM

**Well Pad:** Guacamole CC 24-23 Fed 12 H **Vent Date:** 04/10/2024

**Duration of Event:** 24 Hours **MCF Vented:** 72

**Start Time:** 12:00 AM **End Time:** 11:59 PM

**Cause:** Well Pad > Third Party Vendor > Kodiak Compression Equipment > Scrubber > Big Joe Regulator

**Method of Vented Gas Measurement:** Estimated Vent Calculations

---

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

This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and could not have been avoided by good design, operation, and maintenance practices. Notwithstanding common equipment design and operations, emergencies, and malfunctions, can occur without warning, be sudden, unforeseeable, and unavoidable. It is OXY's policy to route all gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet there are circumstances when flaring is not possible, and venting shall occur. In this case, the big joe regulator to the scrubber on the compressor unit, located on the well pad, failed to hold back pressure, and caused the pressure relief valve to begin venting to atmosphere as a safety measure to keep the compressor unit from over pressuring and causing catastrophic internal damage. Due to the compressor unit was operating and the decimal range of such equipment is extremely deafening, it is very difficult to hear or visually observe venting occurring when the big joe regulator malfunctions and is failing to hold back pressure. Once the venting was discovered, via a flyover, Oxy vented over several days until the compressor unit owner, Kodiak Gas Services, was able to send its mechanic and make repairs, which took some time to do, as they waited on replacement parts.

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

In this case, the big joe regulator to the scrubber on the compressor unit, located on the well pad, failed to hold back pressure, and caused the pressure relief valve to begin venting to atmosphere as a safety measure to keep the compressor unit from over pressuring and causing catastrophic internal damage. Due to the compressor unit was operating and the decimal range of such equipment is extremely deafening, it is very difficult to hear or visually observe venting occurring when the big joe regulator malfunctions and is failing to hold back pressure. Once the venting was discovered, via a flyover, Oxy field personnel contacted Kodiak Gas Services, who owns the unit, to send a mechanic to troubleshoot and/or repair the issue. Oxy field personnel are unable to troubleshoot the gas compressor unit as Oxy does not own the unit. Oxy vented over several days until the compressor unit owner, Kodiak Gas Services, was able to send its mechanic and make repairs, which took some time to do, as they waited on replacement parts. Venting ceased once Kodiak was able to make the repairs to its compressor unit, on April 11th, 2024.

**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 compressor malfunctions as notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur, thereby, triggering venting to occur in some instances, while the compressor continues operating. 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 while working with its third-party vendor compression rental service owners to make repairs and/or troubleshoot their equipment issues, which in some instances can take time to perform or complete, if parts need to be ordered.

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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

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>336884 |
| | 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 336884

## QUESTIONS

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>336884 |
| | Action Type:<br>[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 | **[30-015-45871] GUACAMOLE CC 24 23 FEDERAL #012H** |
| Incident Facility | *Unavailable.* |

| **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 | 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 |

| **Equipment Involved** | |
|---|---|
| Primary Equipment Involved | Other (Specify) |
| Additional details for Equipment Involved. Please specify | Well Pad > Third Party Vendor > Kodiak Compression Equipment > Scrubber > Big Joe Regulator |

| **Representative Compositional Analysis of Vented or Flared Natural Gas** | |
|---|---|
| *Please provide the mole percent for the percentage questions in this group.* | |
| Methane (CH4) percentage | 76 |
| Nitrogen (N2) percentage, if greater than one percent | 2 |
| Hydrogen Sulfide (H2S) PPM, rounded up | 0 |
| Carbon Dioxide (C02) percentage, if greater than one percent | 0 |
| 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)

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>336884 |
| | 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 | 04/10/2024 |
| Time vent or flare was discovered or commenced | 12:00 AM |
| Time vent or flare was terminated | 11:59 PM |
| Cumulative hours during this event | 24 |

| **Measured or Estimated Volume of Vented or Flared Natural Gas** | |
|---|---|
| Natural Gas Vented (Mcf) Details | Cause: Other \| Other (Specify) \| Natural Gas Vented \| Released: 72 Mcf \| Recovered: 0 Mcf \| Lost: 72 Mcf. |
| Natural Gas Flared (Mcf) Details | *Not answered.* |
| Other Released Details | *Not answered.* |
| Additional details for Measured or Estimated Volume(s). Please specify | Estimated Vent Calculations |
| 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 | This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and could not have been avoided by good design, operation, and maintenance practices. Notwithstanding common equipment design and operations, emergencies, and malfunctions, can occur without warning, be sudden, unforeseeable, and unavoidable. It is OXY's policy to route all gas to a flare, rather than vent, during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible, yet there are circumstances when flaring is not possible, and venting shall occur. In this case, the big joe regulator to the scrubber on the compressor unit, located on the well pad, failed to hold back pressure, and caused the pressure relief valve to begin venting to atmosphere as a safety measure to keep the compressor unit from over pressuring and causing catastrophic internal damage. Due to the compressor unit was operating and the decimal range of such equipment is extremely deafening, it is very difficult to hear or visually observe venting occurring when the big joe regulator malfunctions and is failing to hold back pressure. Once the venting was discovered, via a flyover, Oxy vented over several days until the compressor unit owner, Kodiak Gas Services, was able to send its mechanic and make repairs, which took some time to do, as they waited on replacement parts. |
| | In this case, the big joe regulator to the scrubber on the compressor unit, located on the well pad, failed to hold back pressure, and caused the pressure relief valve to begin venting to atmosphere as a safety measure to keep the compressor unit from over pressuring and |

| | |
|---|---|
| Steps taken to limit the duration and magnitude of vent or flare | causing catastrophic internal damage. Due to the compressor unit was operating and the decimal range of such equipment is extremely deafening, it is very difficult to hear or visually observe venting occurring when the big joe regulator malfunctions and is failing to hold back pressure. Once the venting was discovered, via a flyover, Oxy field personnel contacted Kodiak Gas Services, who owns the unit, to send a mechanic to troubleshoot and/or repair the issue. Oxy field personnel are unable to troubleshoot the gas compressor unit as Oxy does not own the unit. Oxy vented over several days until the compressor unit owner, Kodiak Gas Services, was able to send its mechanic and make repairs, which took some time to do, as they waited on replacement parts. Venting ceased once Kodiak was able to make the repairs to its compressor unit, on April 11th, 2024. |
| Corrective actions taken to eliminate the cause and reoccurrence of vent or flare | Oxy is limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur, thereby, triggering venting to occur in some instances, while the compressor continues operating. 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 while working with its third-party vendor compression rental service owners to make repairs and/or troubleshoot their equipment issues, which in some instances can take time to perform or complete, if parts need to be ordered. |

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## ACKNOWLEDGMENTS

| | |
|---|---|
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| | Action Number:<br>336884 |
| | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**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 336884

## CONDITIONS

| | |
|---|---|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696 |
| | Action Number:<br>336884 |
| | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**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. | 4/23/2024 |