



## Certificate of Analysis

Number: 6030-23120311-001A

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. 11, 2024

Field: PERMIAN\_RESOURCES  
Station Name: Sand Dunes CTB Check  
Station Number: 17000C  
Station Location: OP-L0901-BT002  
Sample Point: Meter  
Formation: NEW\_MEXICO  
County:  
Well Name: CTB  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge  
Sampling Company: : OXY

Sampled By: JE  
Sample Of: Gas Spot  
Sample Date: 12/28/2023 09:20  
Sample Conditions: 88 psig, @ 68 °F Ambient: 31 °F  
Effective Date: 12/28/2023 09:20  
Flow Rate: 17996 MSCFD  
Method: GPA-2261M  
Cylinder No: 5030-01063  
Instrument: 70104251 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 01/09/2024 0:00 AM  
Analyzed: 01/09/2024 08:30:50 by EBH

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0000	0.0000	
Nitrogen	1.2725	1.3037	1.5990	
Carbon Dioxide	0.5710	0.5850	1.1272	
Methane	70.6744	72.4044	50.8552	
Ethane	12.9937	13.3118	17.5248	3.555
Propane	7.3509	7.5308	14.5390	2.072
Iso-Butane	0.8677	0.8889	2.2620	0.290
n-Butane	2.1166	2.1684	5.5180	0.683
Iso-Pentane	0.4679	0.4794	1.5143	0.175
n-Pentane	0.5187	0.5314	1.6786	0.192
Hexanes	0.3367	0.3449	1.3013	0.142
Heptanes	0.2976	0.3049	1.3376	0.140
Octanes	0.1258	0.1289	0.6447	0.066
Nonanes Plus	0.0170	0.0175	0.0983	0.010
	97.6105	100.0000	100.0000	7.325

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	22.84	128.26
Compressibility Factor	0.9957	
Relative Density Real Gas	0.7917	4.4283
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia &amp; 60°F</b>		
Real Gas Dry BTU	1340.5	6974.4
Water Sat. Gas Base BTU	1317.6	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1334.7	6974.4
Ideal, Gross HV - Wet	1311.4	6852.4

**Comments:** H2S Field Content 0 ppm  
FMP/LSE NM40659

Hydrocarbon Laboratory Manager

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

**UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Sand Dunes South Corridor CTB**Vent Date:** 06/25/2024**Duration of Event:** 11 Hours 15 Minutes**MCF Vented:** 62 MCF**Start Time:** 08:45 AM**End Time:** 08:00 PM**Cause:** Venting > LP VRU #3 > O2 in Gas Sales System**Method of Vented Gas Measurement:** Estimated Vent Calculations

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

In this case, it was determined that there were higher than tolerable limits of oxygen, where were being detected in the central gas sales system. This created a safety need to shut off emissions equipment in order to identify and mitigate the oxygen source, which was difficult to determine and ultimately was a result of a mechanical failure. This event could not have been prevented as it was not expected for venting to occur.

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

In this case, it was determined that there were higher than tolerable limits of oxygen, where were being detected in the central gas sales system. This created a safety need to shut off emissions equipment in order to identify and mitigate the oxygen source, which was difficult to initially determine and ultimately was a result of a mechanical failure. The steps taken to limit the duration and magnitude of venting during this event was to call for a mechanic to be dispatched to assist in locating the oxygen source. Once the mechanic arrived on-site, the plan of action was to initially shut off the vapor recovery equipment and stage them to brought back online at intervals associated with effective troubleshooting methods to determine oxygen sources. As equipment locations were eliminated as oxygen sources, varying equipment was left on and in normal operations to prevent additional fugitive emissions from occurring. Once the oxygen source was determined to be emitting from an unexpected malfunction from VRU unit # 3, repairs were done. Once repairs were complete, tanks were able to return to zero emissions tolerance pressures. This event could not have been prevented as it was not expected for venting to occur.

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

In this case, there are no actions to take to eliminate the cause and reoccurrence of venting as a result of a sudden and unexpected case of oxygen being in the sales systems as a result of a malfunctioning VRU.

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**District II**  
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**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 363022

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 363022
	Action Type: [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>
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QUESTIONS

Action 363022

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	363022
	Action Type:	[C-129] Venting and/or Flaring (C-129)

QUESTIONS

<b>Prerequisites</b> 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	[fAPP2127048458] Sand Dunes South Corridor CTB

<b>Determination of Reporting Requirements</b> 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	Other (Specify)
Additional details for Equipment Involved. Please specify	Venting > LP VRU #3 > O2 in Gas Sales System

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	72
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 (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.

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QUESTIONS, Page 2

Action 363022

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 363022
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	06/25/2024
Time vent or flare was discovered or commenced	08:45 AM
Time vent or flare was terminated	08:00 PM
Cumulative hours during this event	11

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Vented   Released: 62 Mcf   Recovered: 0 Mcf   Lost: 62 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	In this case, it was determined that there were higher than tolerable limits of oxygen, where were being detected in the central gas sales system. This created a safety need to shut off emissions equipment in order to identify and mitigate the oxygen source, which was difficult to determine and ultimately was a result of a mechanical failure. This event could not have been prevented as it was not expected for venting to occur.
Steps taken to limit the duration and magnitude of vent or flare	In this case, it was determined that there were higher than tolerable limits of oxygen, where were being detected in the central gas sales system. This created a safety need to shut off emissions equipment in order to identify and mitigate the oxygen source, which was difficult to initially determine and ultimately was a result of a mechanical failure. The steps taken to limit the duration and magnitude of venting during this event was to call for a mechanic to be dispatched to assist in locating the oxygen source. Once the mechanic arrived on-site, the plan of action was to initially shut off the vapor recovery equipment and stage them to be brought back online at intervals associated with effective troubleshooting methods to determine oxygen sources. As equipment locations were eliminated as oxygen sources, varying equipment was left on and in normal operations to prevent additional fugitive emissions from occurring. Once the oxygen source was determined to be emitting from an unexpected malfunction from VRU unit # 3, repairs were done. Once repairs were complete, tanks were able to return to zero emissions tolerance pressures. This event could not have been

	prevented as it was not expected for venting to occur.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	In this case, there are no actions to take to eliminate the cause and reoccurrence of venting as a result of a sudden and unexpected case of oxygen being in the sales systems as a result of a malfunctioning VRU.

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ACKNOWLEDGMENTS  
  
Action 363022

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	Action Number: 363022
	Action Type: [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.

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CONDITIONS

Action 363022

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 363022
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	7/10/2024