



## Certificate of Analysis

Number: 6030-24040534-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Apr. 29, 2024

Field: PERMIAN\_RESOURCES  
Station Name: Mesa Verde CTB Check 2 (FMP)  
Station Number: 15500D  
Station Location: OP-L2109-BT001  
Sample Point: Meter  
Property ID: FMP/LSE NMNM055953  
Formation: NEW\_MEXICO  
County:  
Well Name: CTB  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge

Sampled By: JE  
Sample Of: FS Separator Gas Spot  
Sample Date: 04/18/2024 10:20  
Sample Conditions: 84 psig, @ 76 °F Ambient: 75 °F  
Effective Date: 04/18/2024 10:20  
Flow Rate: 46210 MSCFD  
Method: GPA-2261M  
Cylinder No: 9999-005157  
Instrument: 70104251 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 04/22/2024 0:00 AM  
Analyzed: 04/25/2024 07:17:05 by EBH  
Sampling Company: : OXY

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0000	0.0000	
Nitrogen	1.6661	1.6670	2.0766	
Carbon Dioxide	3.8369	3.8389	7.5130	
Methane	73.8729	73.9124	52.7288	
Ethane	10.8777	10.8835	14.5528	2.905
Propane	5.6687	5.6717	11.1216	1.560
Iso-Butane	0.7402	0.7406	1.9142	0.242
n-Butane	1.7965	1.7975	4.6459	0.566
Iso-Pentane	0.4287	0.4289	1.3761	0.157
n-Pentane	0.4689	0.4692	1.5054	0.170
Hexanes	0.2789	0.2790	1.0692	0.115
Heptanes	0.1860	0.1861	0.8292	0.086
Octanes	0.0752	0.0752	0.3820	0.038
Nonanes Plus	0.0500	0.0500	0.2852	0.028
	99.9467	100.0000	100.0000	5.867

## Calculated Physical Properties

Calculated Molecular Weight	Total	C9+
	22.49	128.26
Compressibility Factor	0.9962	
Relative Density Real Gas	0.7791	4.4283

## GPA 2172 Calculation:

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

Real Gas Dry BTU	1233.1	6974.4
Water Sat. Gas Base BTU	1212.0	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1228.4	6974.4
Ideal, Gross HV - Wet	1206.9	6852.4

Comments: H2S Field Content 0 ppm  
WO# 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 VENTING EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Mesa Verde WC #40H**Vent Date:** 02/25/2025**Duration of Event:** 2 Hours 53 Minutes**MCF Vented:** 299**Start Time:** 12:00 AM**End Time:** 02:53 AM**Cause:** Mesa Verde WC #40H > Flow Line A > Flow Line Rupture**Method of Gas Measurement:** Allocated Calculation

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**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 did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this instance, Mesa Verde WC #40H had a flow line rupture on the flow line A on a right a-way going east towards the Mesa Verde 18 CTB. The flow line is an existing flex steel line which had a compromised integrity due to a defect in its bend, which in turn, caused the flow line to rub against another line and creating a wear spot in the line. The flow line ultimately ruptured, leading to the release of fluid and gas into the atmosphere. The flow line did not reach its maximum allowable working pressure. It was rated for the pressures at which it was operated before the rupture and subsequent venting occurred. All the flow lines were functioning as designed and operating normally prior to the unexpected malfunction. This equipment malfunction was spotted during a production tech's daily rounds of the area. This venting event is out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently.

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

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 did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this instance, Mesa Verde WC #40H had a flow line rupture on the flow line A on a right a-way going east towards the Mesa Verde 18 CTB. The flow line is an existing flex steel line which had a compromised integrity due to a defect in its bend, which in turn, caused the flow line to rub against another line and creating a wear spot in the line. The flow line ultimately ruptured, leading to the release of fluid and gas into the atmosphere. The flow line did not reach its maximum allowable working pressure. It was rated for the pressures at which it was operated before the rupture and subsequent venting occurred. As soon as venting was recognized as occurring, the production tech contacted the field's Rover and Surface Lead to inform them of the issue. The production tech and the Control Room began looking for the well line which had ruptured. The production tech had flow back personnel isolating one well at a time at the flowback well pads to identify Mesa Verde WC #40H flowline A as the one which had ruptured. The venting was stopped once repairs were made and tested to ensure venting was no longer occurring. While venting is not Oxy's preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and continued safety of our operations. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.

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

Oxy has limited options for corrective actions to address the causes and potential recurrence of flowline equipment malfunctions. Faulty flow lines that have bends and curves in them are marked and are in process of being removed and replaced. The production technicians on site are conducting routine inspections, monitoring the flow lines and the activity of the operational lines. Flowback personnel are monitoring flow line pressure and flow line temperature. This flow line has a sacrificial valve on it and its cut back 50% to help alleviate high temperature. Facility equipment, regardless of type, can experience sudden and unforeseeable alarms, whether false or true, which may lead to unexpected malfunctions and subsequently trigger venting events. 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.

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Phone: (505) 476-3441

General Information  
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Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

DEFINITIONS

Action 441931

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 441931
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

<p>For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:</p> <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 441931

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 441931
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

<b>Prerequisites</b> <i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	[30-025-48825] MESA VERDE WOLFCAMP UNIT #040H
Incident Facility	Unavailable.

<b>Determination of Reporting Requirements</b> <i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
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.
<i>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.</i>	
Was there <b>at least 50 MCF</b> of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of <b>ANY</b> 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 within 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	Mesa Verde WC #40H > Flow Line A > Flow Line Rupture

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> <i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	4
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
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.

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QUESTIONS, Page 2

Action 441931

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 441931
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	02/25/2025
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	02:53 AM
Cumulative hours during this event	3

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Vented   Released: 299 Mcf   Recovered: 0 Mcf   Lost: 299 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Allocated Calculation
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 did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this instance, Mesa Verde WC #40H had a flow line rupture on the flow line A on a right a-way going east towards the Mesa Verde 18 CTB. The flow line is an existing flex steel line which had a compromised integrity due to a defect in its bend, which in turn, caused the flow line to rub against another line and creating a wear spot in the line. The flow line ultimately ruptured, leading to the release of fluid and gas into the atmosphere. The flow line did not reach its maximum allowable working pressure. It was rated for the pressures at which it was operated before the rupture and subsequent venting occurred. All the flow lines were functioning as designed and operating normally prior to the unexpected malfunction. This equipment malfunction was spotted during a production tech's daily rounds of the area. This venting event is out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently.
	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 did not stem from activity that could have been foreseen and avoided, and could not have been

Steps taken to limit the duration and magnitude of vent or flare	avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this instance, Mesa Verde WC #40H had a flow line rupture on the flow line A on a right a-way going east towards the Mesa Verde 18 CTB. The flow line is an existing flex steel line which had a compromised integrity due to a defect in its bend, which in turn, caused the flow line to rub against another line and creating a wear spot in the line. The flow line ultimately ruptured, leading to the release of fluid and gas into the atmosphere. The flow line did not reach its maximum allowable working pressure. It was rated for the pressures at which it was operated before the rupture and subsequent venting occurred. As soon as venting was recognized as occurring, the production tech contacted the field's Rover and Surface Lead to inform them of the issue. The production tech and the Control Room began looking for the well line which had ruptured. The production tech had flow back personnel isolating one well at a time at the flowback well pads to identify Mesa Verde WC #40H flowline A as the one which had ruptured. The venting was stopped once repairs were made and tested to ensure venting was no longer occurring. While venting is not Oxy's preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and continued safety of our operations. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy has limited options for corrective actions to address the causes and potential recurrence of flowline equipment malfunctions. Faulty flow lines that have bends and curves in them are marked and are in process of being removed and replaced. The production technicians on site are conducting routine inspections, monitoring the flow lines and the activity of the operational lines. Flowback personnel are monitoring flow line pressure and flow line temperature. This flow line has a sacrificial valve on it and its cut back 50% to help alleviate high temperature. Facility equipment, regardless of type, can experience sudden and unforeseeable alarms, whether false or true, which may lead to unexpected malfunctions and subsequently trigger venting events. 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.

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ACKNOWLEDGMENTS

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**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 441931

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	Action Number: 441931
	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.	3/12/2025