



## Certificate of Analysis

Number: 6030-23110129-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Nov. 14, 2023

Field:	PERMIAN_RESOURCES	Sampled By:	Raul Salazar
Station Name:	Falcon Ridge CPF Production #2	Sample Of:	Gas Spot
Station Number:	16840p	Sample Date:	11/13/2023 08:48
Station Location:	OP-L3821-BT001	Sample Conditions:	109 psig, @ 93.8 °F Ambient: 51 °F
Sample Point:	Meter run	Effective Date:	11/13/2023 08:48
Formation:	NEW_MEXICO	Method:	GPA-2261M
County:	Lea, NM	Cylinder No:	4030-004290
Well Name:		Instrument:	70104251 (Inficon GC-MicroFusion)
Type of Sample:	Spot-Cylinder	Last Inst. Cal.:	11/06/2023 0:00 AM
Heat Trace Used:	N/A	Analyzed:	11/14/2023 08:47:52 by EBH
Sampling Method:	Fill and Purge	Flow Rate mcf/d:	
Sampling Company:	SPL - OXY		

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0010	0.0015	
Nitrogen	1.4421	1.4865	1.8527	
Carbon Dioxide	0.3635	0.3747	0.7337	
Methane	71.8252	74.0368	52.8427	
Ethane	12.0641	12.4356	16.6361	3.321
Propane	6.7642	6.9725	13.6788	1.918
Iso-Butane	0.7457	0.7687	1.9878	0.251
n-Butane	1.9680	2.0286	5.2457	0.639
Iso-Pentane	0.5003	0.5157	1.6554	0.188
n-Pentane	0.5069	0.5225	1.6772	0.189
Hexanes	0.3635	0.3747	1.4366	0.154
Heptanes	0.3195	0.3293	1.4680	0.152
Octanes	0.1422	0.1466	0.7450	0.075
Nonanes Plus	0.0066	0.0068	0.0388	0.004
	97.0118	100.0000	100.0000	6.891

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	22.48	128.26
Compressibility Factor	0.9959	
Relative Density Real Gas	0.7790	4.4283

**GPA 2172 Calculation:****Calculated Gross BTU per ft³ @ 14.65 psia & 60°F**

Real Gas Dry BTU	1322.9	6974.4
Water Sat. Gas Base BTU	1300.3	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1317.5	6974.4
Ideal, Gross HV - Wet	1294.4	6852.4

**Comments:** H2S Field Content 10 ppm

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 Tankless CPF**Flare Date:** 02/02/2024**Duration of Event:** 40 Minutes**MCF Flared:** 55**Start Time:** 10:00 AM**End Time:** 10:40 AM**Cause:** Emergency Flare > Compression Equipment Malfunction > Unit # 4**Method of Flared Gas Measurement:** Gas Flare Meter**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 case, gas compressor unit # 4 malfunctioned suddenly and unexpectedly due to an engine underspeed alarm, which then prompted the compression unit to shut down. As a result of compressor unit #4 shutting down, this prompted the facility to pressure up and trigger a flaring event. Compressor engines are designed to operate in a precise manner and when malfunctions occur, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.

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

It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon notice of flaring, malfunction gas compressor unit and/or multiple unit shutdown alarms, increased sensor line pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, gas compressor unit # 4 malfunctioned suddenly and unexpectedly due to an engine underspeed alarm, which then prompted the compression unit to shut down. As a result of compressor unit #4 shutting down, this in turn caused the facility to pressure up and trigger a flaring event. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Compressor engines are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and robs the compression engine of power, thus, causing an automatic shutdown of the unit. On-site field personnel manually choked back several wells so that field pressure would stay below the flare trigger setpoints of the facility to cease flaring. This malfunctioning event is out of OXY's control. 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 is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate all its facility locations equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for all its facilities.

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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

Action 315018

**DEFINITIONS**

Operator:	OGRID: 16696
OXY USA INC P.O. Box 4294 Houston, TX 772104294	Action Number: 315018
	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:

- 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 315018

**QUESTIONS**

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  315018
	Action Type:  [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	Unavailable.
Incident Facility	[fAPP2331575145] Falcon Ridge Tankless CPF

**Determination of Reporting Requirements**

*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	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 <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

**Equipment Involved**

Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Compression Equipment Malfunction > Unit # 4

**Representative Compositional Analysis of Vented or Flared Natural Gas**

*Please provide the mole percent for the percentage questions in this group.*

Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	10
Carbon Dioxide (CO2) 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	<i>Not answered.</i>
Nitrogen (N2) percentage quality requirement	<i>Not answered.</i>
Hydrogen Sulfide (H2S) PPM quality requirement	<i>Not answered.</i>
Carbon Dioxide (CO2) percentage quality requirement	<i>Not answered.</i>
Oxygen (O2) percentage quality requirement	<i>Not answered.</i>

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QUESTIONS, Page 2

Action 315018

**QUESTIONS (continued)**

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  315018
	Action Type:  [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	02/02/2024
Time vent or flare was discovered or commenced	10:00 AM
Time vent or flare was terminated	10:40 AM
Cumulative hours during this event	1

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	<i>Not answered.</i>
Natural Gas Flared (Mcf) Details	<i>Cause: Other   Other (Specify)   Natural Gas Flared   Released: 55 Mcf   Recovered: 0 Mcf   Lost: 55 Mcf.</i>
Other Released Details	<i>Not answered.</i>
Additional details for Measured or Estimated Volume(s). Please specify	<b>Gas Flare Meter</b>
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>Yes, according to supplied volumes this appears to be a "gas only" report.</b>

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	<b>No</b>
Was notification of downstream activity received by this operator	<i>Not answered.</i>
Downstream OGRID that should have notified this operator	<i>Not answered.</i>
Date notified of downstream activity requiring this vent or flare	<i>Not answered.</i>
Time notified of downstream activity requiring this vent or flare	<i>Not answered.</i>

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.	<b>True</b>
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 case, gas compressor unit #4 malfunctioned suddenly and unexpectedly due to an engine underspeed alarm, which then prompted the compression unit to shut down. As a result of compressor unit #4 shutting down, this prompted the facility to pressure up and trigger a flaring event. Compressor engines are designed to operate in a precise manner and when malfunctions occur, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.
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Steps taken to limit the duration and magnitude of vent or flare	as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, gas compressor unit #4 malfunctioned suddenly and unexpectedly due to an engine underspeed alarm, which then prompted the compression unit to shut down. As a result of compressor unit #4 shutting down, this in turn caused the facility to pressure up and trigger a flaring event. Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Compressor engines are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and robs the compression engine of power, thus, causing an automatic shutdown of the unit. On-site field personnel manually choked back several wells so that field pressure would stay below the flare trigger setpoints of the facility to cease flaring. This malfunctioning event is out of OXY's control. 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 is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate all its facility locations equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to continue with its equipment preventative maintenance program for all its facilities.

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ACKNOWLEDGMENTS

Action 315018

**ACKNOWLEDGMENTS**

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	Action Number:  315018
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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 315018

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	Action Number:  315018
	Action Type:  [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.	2/15/2024