Certificate of Analysis

Number: 6030-24010172-001A

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 CPF Flare Fuel	Sample Of:	Gas Composite
Station Number:	N/A	Sample Date:	01/15/2024 11:45
Station Location:	Fuel Gas	Sample Conditions:	123 psig Ambient: 78 °F
Sample Point:	Inlet	Effective Date:	01/15/2024 11:45
Formation:	NEW_MEXICO	Flow Rate:	N/A
County:	Lea	Method:	GPA-2261M
Well Name:	N/A	Cylinder No:	1111-008297
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 13:57:29 by EBH
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0005	0.0008	
Nitrogen	1.3597	1.3866	1.7817	
Carbon Dioxide	1.0467	1.0674	2.1548	
Methane	73.3808	74.8346	55.0684	
Ethane	12.2177	12.4597	17.1853	3.326
Propane	6.6220	6.7532	13.6595	1.857
Iso-Butane	0.7649	0.7801	2.0798	0.255
n-Butane	1.6468	1.6794	4.4774	0.528
Iso-Pentane	0.4382	0.4469	1.4790	0.163
n-Pentane	0.4004	0.4083	1.3513	0.148
Hexanes	0.1293	0.1319	0.5214	0.054
Heptanes	0.0450	0.0459	0.2110	0.021
Octanes	0.0043	0.0044	0.0231	0.002
Nonanes Plus	0.0011	0.0011	0.0065	0.001
	98.0569	100.0000	100.0000	6.355

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	21.80	128.26
Compressibility Factor	0.9962	
Relative Density Real Gas	0.7553	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1270.6	6974.4
Water Sat. Gas Base BTU	1248.9	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1265.8	6974.4
Ideal, Gross HV - Wet	1243.7	6852.4

Comments: H2S Field Content 4.5 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 CPF

Flare Date: 08/04/2024

Duration of Event: 1 Hour 40 Minutes

MCF Flared: 129

Start Time: 11:50 AM

End Time: 01:30 PM

Cause: Emergency Flare > Equipment Malfunction > Well Auto Choke System

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, this flaring event occurred due to Train 3 experienced a shutdown of its wells due to a malfunctioning pressure transmitter on the oil VRT designated for that specific train. This fault triggered a false HIHI level alarm, leading to the wells shutting in. Consequently, this also resulted in the shutdown of some CGL compression equipment. Upon restarting the wells for train 3, it was discovered and subsequently confirmed that the Autochoke program did not activate or engage as intended. As a result, as the wells were reopened, the increase in gas flow caused an overpressure condition to the facility, directing surplus gas to the flare system rather than being regulated by the autochoke system to prevent such an event from occurring. No alarm warnings or alert signals were present to indicate that the gas flow was leading to a condition of overpressure, or that the autochoke system was malfunctioning. This event occurred outside of OXY's control; however, Oxy implemented every conceivable action to minimize emissions efficiently.

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, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, this flaring event occurred due to Train 3 experienced a shutdown of its wells due to a malfunctioning pressure transmitter on the oil VRT designated for that specific train. This fault triggered a false HIHI level alarm, leading to the wells shutting in. Consequently, this also resulted in the shutdown of some CGL compression equipment. Upon restarting the wells for train 3, it was discovered and subsequently confirmed that the Autochoke program did not activate or engage as intended. As a result, as the wells were reopened, the increase in gas flow caused an overpressure condition to the facility, directing surplus gas to the flare system rather than being regulated by the autochoke system to prevent such an event from occurring. No alarm warnings or alert signals were present to indicate that the gas flow was leading to a condition of overpressure, or that the autochoke system was malfunctioning. Upon commencement of flaring, the autochoke system was promptly reinstated to minimize flaring at Falcon Ridge CPF until pressures remained under the facility's flare activation thresholds. Oxy has notified its automation team about the autochoke malfunctioning. The team is set to investigate the autochoke system's errors and its programming. This event occurred outside of OXY's control; however, Oxy implemented every conceivable action to minimize emissions efficiently

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

Oxy's options for addressing and preventing the root cause of an autochoke system malfunction in wells are somewhat constrained. Despite their design and operational standards, such systems are naturally subject to fluctuations, and both minor and unexpected alarms—whether they are accurate or not—can lead to immediate malfunctions. Nevertheless, Oxy consistently aims to operate and maintain its equipment according to industry best practices, with a focus on reducing emissions and minimizing the frequency of emission-related incidents. Oxy has established a robust and proactive preventative maintenance program for its equipment.

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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: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 375369
	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 375369

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 375369
	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 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 > Equipment Malfunction > Well Auto Choke System

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	75
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	5
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)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 375369
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	08/04/2024
Time vent or flare was discovered or commenced	11:50 AM
Time vent or flare was terminated	01:30 PM
Cumulative hours during this event	2

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: 129 Mcf | Recovered: 0 Mcf | Lost: 129 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	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, this flaring event occurred due to Train 3 experienced a shutdown of its wells due to a malfunctioning pressure transmitter on the oil VRT designated for that specific train. This fault triggered a false HIHI level alarm, leading to the wells shutting in. Consequently, this also resulted in the shutdown of some CGL compression equipment. Upon restarting the wells for train 3, it was discovered and subsequently confirmed that the Autochoke program did not activate or engage as intended. As a result, as the wells were reopened, the increase in gas flow caused an overpressure condition to the facility, directing surplus gas to the flare system rather than being regulated by the autochoke system to prevent such an event from occurring. No alarm warnings or alert signals were present to indicate that the gas flow was leading to a condition of overpressure, or that the autochoke system was malfunctioning. This event occurred outside of OXY's control; however, Oxy implemented every conceivable action to minimize emissions efficiently.
	It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration

Steps taken to limit the duration and magnitude of vent or flare	and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, this flaring event occurred due to Train 3 experienced a shutdown of its wells due to a malfunctioning pressure transmitter on the oil VRT designated for that specific train. This fault triggered a false HIHI level alarm, leading to the wells shutting in. Consequently, this also resulted in the shutdown of some CGL compression equipment. Upon restarting the wells for train 3, it was discovered and subsequently confirmed that the Autochoke program did not activate or engage as intended. As a result, as the wells were reopened, the increase in gas flow caused an overpressure condition to the facility, directing surplus gas to the flare system rather than being regulated by the autochoke system to prevent such an event from occurring. No alarm warnings or alert signals were present to indicate that the gas flow was leading to a condition of overpressure, or that the autochoke system was malfunctioning. Upon commencement of flaring, the autochoke system was promptly reinstated to minimize flaring at Falcon Ridge CPF until pressures remained under the facility's flare activation thresholds. Oxy has notified its automation team about the autochoke malfunctioning. The team is set to investigate the autochoke system's errors and its programming. This event occurred outside of OXY's control; however, Oxy implemented every conceivable action to minimize emissions efficiently.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy's options for addressing and preventing the root cause of an autochoke system malfunction in wells are somewhat constrained. Despite their design and operational standards, such systems are naturally subject to fluctuations, and both minor and unexpected alarms—whether they are accurate or not—can lead to immediate malfunctions. Nevertheless, Oxy consistently aims to operate and maintain its equipment according to industry best practices, with a focus on reducing emissions and minimizing the frequency of emission-related incidents. Oxy has established a robust and proactive preventative maintenance program for its equipment.

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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 375369
	Action Type: [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 375369

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 375369
	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.	8/19/2024