Certificate of Analysis

Number: 6030-24010190-001A

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. 18, 2024

Field:	PERMIAN_RESOURCES	Sampled By:	Roberto Andrade
Station Name:	Falcon Ridge CGL Check	Sample Of:	Gas Spot
Station Number:	16920C	Sample Date:	01/16/2024 01:45
Station Location:	OP-L3821-CS001	Sample Conditions:	1212.9 psig, @ 93.1 °F Ambient: 25 °F
Sample Point:	Meter	Effective Date:	01/16/2024 01:45
Formation:	NEW_MEXICO	Flow Rate:	9433.446 MSCFD
County:	Lea	Method:	GPA-2261M
Well Name:	CDP	Cylinder No:	1111-007142
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:	01/17/2024 12:26:56 by EBH
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0000	0.0000	
Nitrogen	1.2630	1.2839	1.5206	
Carbon Dioxide	1.0472	1.0645	1.9807	
Methane	68.8088	69.9451	47.4405	
Ethane	12.6002	12.8083	16.2829	3.422
Propane	8.8294	8.9752	16.7325	2.470
Iso-Butane	1.2093	1.2293	3.0208	0.402
n-Butane	2.8878	2.9355	7.2135	0.924
Iso-Pentane	0.6543	0.6651	2.0288	0.243
n-Pentane	0.5769	0.5864	1.7887	0.212
Hexanes	0.2932	0.2980	1.0857	0.122
Heptanes	0.1717	0.1745	0.7393	0.080
Octanes	0.0323	0.0328	0.1584	0.017
Nonanes Plus	0.0014	0.0014	0.0076	0.001
	98.3755	100.0000	100.0000	7.893

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.65	128.26
Compressibility Factor	0.9954	
Relative Density Real Gas	0.8201	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1372.7	6974.4
Water Sat. Gas Base BTU	1349.3	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1366.4	6974.4
Ideal, Gross HV - Wet	1342.5	6852.4

Comments: H2S Field Content 0 ppm
FMP/LSE N/A, WO#4001595465

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 CGL

Flare Date: 01/14/2025

Duration of Event: 4 Hours 11 Minutes

MCF Flared: 202

Start Time: 01:41 AM

End Time: 05:52 AM

Cause: Emergency Flare > Extreme Freezing Weather Conditions > Multiple Compression Equipment Issues

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, the Falcon Ridge CGL compressor station went down around approximately 1:40 AM due to a sudden and unexpected loss of fuel skids, which had frozen, due to extreme freezing weather conditions, which in turn, caused a loss of fuel supply to the compressors. As a result of the loss of the fuels skids, all compression equipment shutdown. Shortly after, at approximately 2:37 AM, and again around 3:56 AM, the compression equipment malfunctioned and shut down due to repeated fuel supply freezes. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible. This flaring event's duration and volume result from several brief intermittent flares over 24 hours.

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, the Falcon Ridge CGL compressor station went down around approximately 1:40 AM due to a sudden and unexpected loss of fuel skids, which had frozen, due to extreme freezing weather conditions, which in turn, caused a loss of fuel supply to the compressors. As a result of the loss of the fuels skids, all compression equipment shutdown. Shortly after, at approximately 2:37 AM, and again around 3:56 AM, the compression equipment malfunctioned and shut down due to repeated fuel supply freezes. To address potential freezing issues affecting the equipment, on-site field personnel set the levers on the compressors to closed positions in advance to isolate heat on gas discharge lines. Furthermore, on-site field personnel consistently drained the instrument air lines to maintain maximum pressure levels for efficient operation of the lube pumps. They also covered the fuel skids with tarps to ensure optimal warmth. Moreover, Train #1 was equipped with a heat trailer on the fuel skid to assist in potentially preventing freezing issues. As soon as flaring occurred in each instance, on-site field personnel immediately blew down the compressors to suction header until they would equalize with the header and then blew down the remaining minimal pressures to the flare. 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 compression unit’s operating manner and robs the compression engine of power, thus, causing an automatic shutdown of the unit. 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 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 the unit's sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components. 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. During extreme freezing weather conditions, field personnel install methanol injections before the fuel skids to keep them from freezing while also monitoring gas compression temperatures and flow rates to the fuel skids. Oxy also has a strong and positive equipment preventative maintenance program in place.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 475312
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 475312
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 ID (n#)	*Unavailable.*
Incident Name	*Unavailable.*
Incident Type	**Flare**
Incident Status	*Unavailable.*
Incident Facility	**[fAPP2333082512] Falcon Ridge CGL CS**
Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.	

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 > Extreme Freezing Weather Conditions > Multiple Compression Equipment Issues

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	70
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 (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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (02) percentage quality requirement	0

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 475312
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/14/2025
Time vent or flare was discovered or commenced	01:41 AM
Time vent or flare was terminated	05:52 AM
Cumulative hours during this event	4

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: 202 MCF | Recovered: 0 MCF | Lost: 202 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	No
Downstream OGRID that should have notified this operator	0
Date notified of downstream activity requiring this vent or flare	
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, the Falcon Ridge CGL compressor station went down around approximately 1:40 AM due to a sudden and unexpected loss of fuel skids, which had frozen, due to extreme freezing weather conditions, which in turn, caused a loss of fuel supply to the compressors. As a result of the loss of the fuels skids, all compression equipment shutdown. Shortly after, at approximately 2:37 AM, and again around 3:56 AM, the compression equipment malfunctioned and shut down due to repeated fuel supply freezes. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible. This flaring event's duration and volume result from several brief intermittent flares over 24 hours.
	In this case, the Falcon Ridge CGL compressor station went down around approximately 1:40 AM due to a sudden and unexpected loss of fuel skids, which had frozen, due to extreme freezing weather conditions, which in turn, caused a loss of fuel supply to the compressors. As a result of the loss of the fuels skids, all compression equipment shutdown. Shortly after, at approximately 2:37 AM, and again around 3:56 AM, the compression equipment malfunctioned and shut down due to repeated fuel supply freezes. To address potential

Steps taken to limit the duration and magnitude of vent or flare	freezing issues affecting the equipment, on-site field personnel set the levers on the compressors to closed positions in advance to isolate heat on gas discharge lines. Furthermore, on-site field personnel consistently drained the instrument air lines to maintain maximum pressure levels for efficient operation of the lube pumps. They also covered the fuel skids with tarps to ensure optimal warmth. Moreover, Train #1 was equipped with a heat trailer on the fuel skid to assist in potentially preventing freezing issues. As soon as flaring occurred in each instance, on-site field personnel immediately blew down the compressors to suction header until they would equalize with the header and then blew down the remaining minimal pressures to the flare. 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 compression unit's operating manner and robs the compression engine of power, thus, causing an automatic shutdown of the unit. 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 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 the unit's sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components. 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. During extreme freezing weather conditions, field personnel install methanol injections before the fuel skids to keep them from freezing while also monitoring gas compression temperatures and flow rates to the fuel skids. Oxy also has a strong and positive equipment preventative maintenance program in place.

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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 475312
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

ACKNOWLEDGMENTS

☑	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
☑	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
☑	I hereby certify the statements in this amending 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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 475312
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	6/16/2025