

# 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 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

Sample Point:Meter runEffective Date:11/13/2023 08:4Formation:NEW\_MEXICOMethod:GPA-2261MCounty:Lea, NMCylinder 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		Tot	al	C9+
Calculated Molecular \		22.4	-	128.26
Compressibility Factor		0.995	-	
Relative Density Real Gas		0.779	90	4.4283
GPA 2172 Calculation	= = =			
Calculated Gross BT	U per ft <sup>3</sup> @ 14.65 ps	sia & 60°F		
Real Gas Dry BTU		1322	.9	6974.4
Water Sat. Gas Base I		1300	.3	6852.4
Ideal, Gross HV - Dry		1317	.5	6974.4
Ideal, Gross HV - Wet		1294	.4	6852.4

Comments. Tizo Field Content to ppin

Bolg &

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: 12/26/2023

**Duration of Event:** 1 Hour 30 Minutes **MCF Flared:** 74

Start Time: 03:00 AM End Time: 04:30 AM

**Cause:** Emergency Flare > VRU's > HIHI Pressure

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 # 1 malfunctioned and shutdown, which in turn prompted the CPF to pressure up, which then prompted the VRU's to reach a HIHI pressure and shut down. Once the VRU's shut down, the facility's VRT triggered a flaring event to occur which then prompted the VRT's to malfunction on HIHI suction pressure, extending the flaring event until all the VRU's and VRT were cleared of the malfunctions and brought back online. The VRU's are supposed to still be able to discharge into the sales line but the pressures were increased due to backpressures caused from the chemical treatment skids. Notwithstanding proper VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance notice. VRU's and VRT's are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and automatically shuts the power off, which in turn, prompts an automatic shutdown of the equipment. VRU and VRT malfunctions occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of equipment malfunction from occurring. 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 # 1 malfunctioned and shutdown, which in turn prompted the CPF to pressure up, which then prompted the VRU's to reach a HIHI pressure and shut down. Once the VRU's shut down, the facility's VRT triggered a flaring event to occur which then prompted the VRT's to malfunction on HIHI suction pressure,

extending the flaring event until all the VRU's and VRT were cleared of the malfunctions and brought back online. The VRU's are supposed to still be able to discharge into the sales line but the pressures were increased due to backpressures caused from the chemical treatment skids. The compressor unit was restarted and the VRU's and VRT were brought back online manually, while additional on-site personnel adjusted facility pressure to keep the VRU's from malfunctioning on high discharge pressure. Notwithstanding proper VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance OXY made every effort to control and minimize emissions as much as possible during this event.

# 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 VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance notice. VRU's and VRT's are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and automatically shuts the power off, which in turn, prompts an automatic shutdown of the equipment. VRU and VRT malfunctions occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of equipment malfunction from occurring. 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 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 and continually work to efficiently resolve those issues in a timely manner, should they continue to occur suddenly and without warning.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170

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 302361

#### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	302361
	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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1220 S. St Francis Dr., Santa Fe, NM 87505

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

QUESTIONS

Action 302361

Phone:(505) 476-3470 Fax:(505) 476-3462		
	UESTIONS	<del>,</del>
Operator: OXY USA INC		OGRID: 16696
P.O. Box 4294		Action Number:
Houston, TX 772104294		302361
		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 w	ith the rest of the questions.
Incident Well	t 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 a	nd may provide addional quidance	
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 v	venting and/or flaring that is or ma	v he 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	y be a major of millor release ander 19.10.25.7 Millore.
Did this vent or flare result in the release of <b>ANY</b> liquids (not fully and/or completely	1.55	
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 > VRU's	> HIHI Pressure
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	en (N2) percentage, if greater than one percent	
Hydrogen Sulfide (H2S) PPM, rounded up	10	
Carbon Dioxide (C02) percentage, if greater than one percent	0	
Oxygen (02) percentage, if greater than one percent	0	
If you are venting and/or flaring because of Pipeline Specification, please provide the required spec	cifications 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.	
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Not answered.

Oxygen (02) percentage quality requirement

**District I** 

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Phone: (5/5) /48-1283 Fax: (5/5) /48-9/20 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

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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

QUESTIONS, Page 2

Action 302361

QUESTIONS (con	tinuea)
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QUED HONO (Continued)		
Operator:	OGRID:	
OXY USA INC	16696	
P.O. Box 4294	Action Number:	
Houston, TX 772104294	302361	
	Action Type:	
	[C-129] Venting and/or Flaring (C-129)	
QUESTIONS		
D-4-(-)  T (-)		

# Date(s) and Time(s) Date vent or flare was discovered or commenced Time vent or flare was discovered or commenced 03:00 AM Time vent or flare was terminated 04:30 AM 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: 74 Mcf   Recovered: 0 Mcf   Lost: 74 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.	

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, gas compressor unit # 1 malfunctioned and shutdown, which in turn prompted the CPF to pressure up, which then prompted the VRU's to reach a HIHI pressure and shut down. Once the VRU's shut down, the facility's VRT triggered a flaring event to occur which then prompted the VRT's to malfunction on HIHI suction pressure, extending the flaring event until all the VRU's and VRT were cleared of the malfunctions and brought back online. The VRU's are supposed to still be able to discharge into the sales line but the pressures were increased due to backpressures caused from the chemical treatment skids. Notwithstanding proper VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance notice. VRU's and VRT's are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and automatically shuts the power off, which in turn, prompts an automatic shutdown of the equipment. VRU and VRT malfunctions occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of equipment malfunction from occurring. This malfunctioning event is out of OXY's

	control. OXY made every effort to control and minimize emissions as much as possible.
Steps taken to limit the duration and magnitude of vent or flare	In this case, gas compressor unit # 1 malfunctioned and shutdown, which in turn prompted the CPF to pressure up, which then prompted the VRU's to reach a HIHI pressure and shut down. Once the VRU's shut down, the facility's VRT triggered a flaring event to occur which then prompted the VRT's to malfunction on HIHI suction pressure, extending the flaring event until all the VRU's and VRT were cleared of the malfunctions and brought back online. The VRU's are supposed to still be able to discharge into the sales line but the pressures were increased due to backpressures caused from the chemical treatment skids. The compressor unit was restarted and the VRU's and VRT were brought back online manually, while additional on-site personnel adjusted facility pressure to keep the VRU's from malfunctioning on high discharge pressure. Notwithstanding proper VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance OXY made every effort to control and minimize emissions as much as possible during this event.
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 VRU and VRT design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause malfunctions to occur without warning or advance notice. VRU's and VRT's are designed to operate in a precise manner and when malfunctions occur, it disrupts the operating manner and automatically shuts the power off, which in turn, prompts an automatic shutdown of the equipment. VRU and VRT malfunctions occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of equipment malfunction from occurring. 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 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 and continually work to efficiently resolve those issues in a timely manner, should they continue to occur suddenly and without warning.

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ACKNOWLEDGMENTS

Action 302361

# **ACKNOWLEDGMENTS**

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P.O. Box 4294	Action Number:
Houston, TX 772104294	302361
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

### **ACKNOWLEDGMENTS**

V	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.
V	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.
V	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.
V	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 302361

# **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	302361
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

### CONDITIONS

Created By		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.	1/10/2024