



## 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  
Station Name: Falcon Ridge CPF Production #2  
Station Number: 16840p  
Station Location: OP-L3821-BT001  
Sample Point: Meter run  
Formation: NEW\_MEXICO  
County: Lea, NM  
Well Name:  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge  
Sampling Company: :SPL - OXY

Sampled By: Raul Salazar  
Sample Of: Gas Spot  
Sample Date: 11/13/2023 08:48  
Sample Conditions: 109 psig, @ 93.8 °F Ambient: 51 °F  
Effective Date: 11/13/2023 08:48  
Method: GPA-2261M  
Cylinder No: 4030-004290  
Instrument: 70104251 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 11/06/2023 0:00 AM  
Analyzed: 11/14/2023 08:47:52 by EBH  
Flow Rate mcf/d:

## 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

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C9+</b>
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 ft<sup>3</sup> @ 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:** 11/12/2023**Duration of Event:** 5 Hours 20 Minutes**MCF Flared:** 706**Start Time:** 02:20 AM**End Time:** 07:40 AM**Cause:** Emergency Flare > Third Party Downstream Activity > TARGA > Emergency Shutdown > False O2**Method of Flared Gas Measurement:** Gas Flare Meter

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**1. Reason why this event was beyond Operator's control:**

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, Targa, third party downstream operator, had issues with a faulty O2 gas detection sensor on their end, which caused an unplanned emergency shutdown and resulted in their inability to take gas from Oxy, when their ESD valve slammed shut, which in turn caused high line pressure to occur, which then prompted the field to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with little to no advance notice or warning.

**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, Targa, third party downstream operator, had issues with a faulty O2 gas detection sensor on their end, which caused an unplanned emergency shutdown and resulted in their inability to take gas from Oxy, when their ESD valve slammed shut, which in turn caused high line pressure to occur, which then prompted the field to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with little to no advance notice or warning. As soon as flaring was triggered, on-site Oxy facility personnel contacted Targa personnel regarding the issue with the O2 sensor on their end and were informed by Targa they would send their technicians in later in the early morning. Several wells were shut-in to assist with reducing field pressure so that it would stay below the flare trigger setpoints of the facility, which took some time to do. 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 unable to take any corrective actions to eliminate the cause and potential reoccurrence of a downstream third-party owned and operated gas plants and/or associated downstream facility issues, as this is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Targa will have issues which may reoccur from time to time and may trigger a spike in the gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Targa's facilities and/or gas plants has equipment issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Targa then restricts Oxy's ability to send gas, which then prompts Oxy to route all its stranded gas not pushed into the Targa service line, to flare. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with Targa personnel, who own and operate the sales gas pipeline, when possible, during these types of circumstances.

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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 289147

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 289147
	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: <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 289147

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 289147
	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 Operator	[16696] OXY USA INC
Incident Type	Flare
Incident Status	Closure Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2331575145] Falcon Ridge Tankless CPF

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 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, major 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 <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 > Third Party Downstream Activity > TARGA > Emergency Shutdown > False O2

**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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sulfide (H2S) PPM quality requirement	0
Carbon Dioxide (CO2) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0



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QUESTIONS, Page 2

Action 289147

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	289147
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	11/12/2023
Time vent or flare was discovered or commenced	02:20 AM
Time vent or flare was terminated	07:40 AM
Cumulative hours during this event	5

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: 706 MCF   Recovered: 0 MCF   Lost: 706 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	Yes
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	[24650] TARGA MIDSTREAM SERVICES LLC
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	The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, Targa, third party downstream operator, had issues with a faulty O2 gas detection sensor on their end, which caused an unplanned emergency shutdown and resulted in their inability to take gas from Oxy, when their ESD valve slammed shut, which in turn caused high line pressure to occur, which then prompted the field to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with little to no advance notice or warning.
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Steps taken to limit the duration and magnitude of vent or flare	emergency shutdown and resulted in their inability to take gas from Oxy, when their ESD valve slammed shut, which in turn caused high line pressure to occur, which then prompted the field to pressure up automatically and trigger a flaring event to occur. This event could not have been foreseen, avoided or prevented from happening as this event occurred with little to no advance notice or warning. As soon as flaring was triggered, on-site Oxy facility personnel contacted Targa personnel regarding the issue with the O2 sensor on their end and were informed by Targa they would send their technicians in later in the early morning. Several wells were shut-in to assist with reducing field pressure so that it would stay below the flare trigger setpoints of the facility, which took some time to do. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
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ACKNOWLEDGMENTS

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**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<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 289147

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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.	11/28/2023