



## Certificate of Analysis

Number: 6030-23120311-001A

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. 11, 2024

Field: PERMIAN\_RESOURCES  
Station Name: Sand Dunes CTB Check  
Station Number: 17000C  
Station Location: OP-L0901-BT002  
Sample Point: Meter  
Formation: NEW\_MEXICO  
County:  
Well Name: CTB  
Type of Sample: : Spot-Cylinder  
Heat Trace Used: N/A  
Sampling Method: : Fill and Purge  
Sampling Company: : OXY

Sampled By: JE  
Sample Of: Gas Spot  
Sample Date: 12/28/2023 09:20  
Sample Conditions: 88 psig, @ 68 °F Ambient: 31 °F  
Effective Date: 12/28/2023 09:20  
Flow Rate: 17996 MSCFD  
Method: GPA-2261M  
Cylinder No: 5030-01063  
Instrument: 70104251 (Inficon GC-MicroFusion)  
Last Inst. Cal.: 01/09/2024 0:00 AM  
Analyzed: 01/09/2024 08:30:50 by EBH

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	0.0000	0.0000	0.0000	
Nitrogen	1.2725	1.3037	1.5990	
Carbon Dioxide	0.5710	0.5850	1.1272	
Methane	70.6744	72.4044	50.8552	
Ethane	12.9937	13.3118	17.5248	3.555
Propane	7.3509	7.5308	14.5390	2.072
Iso-Butane	0.8677	0.8889	2.2620	0.290
n-Butane	2.1166	2.1684	5.5180	0.683
Iso-Pentane	0.4679	0.4794	1.5143	0.175
n-Pentane	0.5187	0.5314	1.6786	0.192
Hexanes	0.3367	0.3449	1.3013	0.142
Heptanes	0.2976	0.3049	1.3376	0.140
Octanes	0.1258	0.1289	0.6447	0.066
Nonanes Plus	0.0170	0.0175	0.0983	0.010
	97.6105	100.0000	100.0000	7.325

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	22.84	128.26
Compressibility Factor	0.9957	
Relative Density Real Gas	0.7917	4.4283
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia &amp; 60°F</b>		
Real Gas Dry BTU	1340.5	6974.4
Water Sat. Gas Base BTU	1317.6	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1334.7	6974.4
Ideal, Gross HV - Wet	1311.4	6852.4

**Comments:** H2S Field Content 0 ppm  
FMP/LSE NM40659

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:** Sand Dunes South Corridor**Flare Date:** 10/05/2024**Duration of Event:** 2 Hours 26 Minutes**MCF Flared:** 1929**Start Time:** 11:53 AM**End Time:** 02:19 PM**Cause:** Emergency Flare > Third Party Downstream Activity > Enterprise > South Station > Emergency Shutdowns > Automation Related**Method of Flared Gas Measurement:** Gas Flare Meter**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, Enterprise's south station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to an automation related issue on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's south station facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger several intermittent flaring instances to occur at the Sand Dunes South Corridor CTB, while Enterprise personnel attempted to troubleshoot their equipment issues. No advance warning or notice was provided by Enterprise personnel of an issue with their downstream facility operations or equipment. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning from Enterprise or its personnel. The duration and volume of this flaring event is a combination of multiple intermittent flaring instances within a 24-hour period.

**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. In this case, Enterprise's south station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to an automation related issue on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's south station facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger several intermittent flaring instances to occur at the Sand Dunes South Corridor CTB, while Enterprise personnel attempted to troubleshoot their equipment issues. No advance warning or notice was provided by Enterprise personnel of an issue with their downstream facility operations or equipment. In each instance of flaring, field personnel engaged in Oxy's third party pipeline operation curtailment reactive stratagems and assisted with activating storage wells and began to shut-in several high GOR wells 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. With the amount of gas the Sand Dunes South Corridor CTB processes, the immediate spike in field pressure did not allow Oxy field personnel to take precautions to limit its emissions. Although this situation is beyond OXY's control, OXY has taken every possible step to manage and reduce emissions.

**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 plant's 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. Enterprise operations 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 Enterprise's facilities have equipment issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then prompts Oxy to route all its stranded gas not pushed into the Enterprise gas pipeline, 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 Enterprise personnel, who 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 393943

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 393943
	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 393943

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 393943
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

<b>Prerequisites</b> 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	[fAPP2127048458] Sand Dunes South Corridor CTB
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.	

<b>Determination of Reporting Requirements</b> 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 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 within 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

<b>Equipment Involved</b>	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Third Party Downstream Activity > Enterprise > South Station > Emergency Shutdowns > Automation Related

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	72
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	1
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	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.



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QUESTIONS, Page 2  
Action 393943

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	393943
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	10/05/2024
Time vent or flare was discovered or commenced	11:53 AM
Time vent or flare was terminated	02:19 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: 1,929 Mcf   Recovered: 0 Mcf   Lost: 1,929 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	[713731] Enterprise Crude Pipeline 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, Enterprise's south station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to an automation related issue on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's south station facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger several intermittent flaring instances to occur at the Sand Dunes South Corridor CTB, while Enterprise personnel attempted to troubleshoot their equipment issues. No advance warning or notice was provided by Enterprise personnel of an issue with their downstream facility operations or equipment. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning from Enterprise or its personnel. The duration and volume of this flaring event is a combination of multiple intermittent flaring instances within a 24-hour period.
	It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable

Steps taken to limit the duration and magnitude of vent or flare	<p>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. In this case, Enterprise's south station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to an automation related issue on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's south station facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger several intermittent flaring instances to occur at the Sand Dunes South Corridor CTB, while Enterprise personnel attempted to troubleshoot their equipment issues. No advance warning or notice was provided by Enterprise personnel of an issue with their downstream facility operations or equipment. In each instance of flaring, field personnel engaged in Oxy's third party pipeline operation curtailment reactive stratagems and assisted with activating storage wells and began to shut-in several high GOR wells 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. With the amount of gas the Sand Dunes South Corridor CTB processes, the immediate spike in field pressure did not allow Oxy field personnel to take precautions to limit its emissions. Although this situation is beyond OXY's control, OXY has taken every possible step to manage and reduce emissions.</p>
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	<p>Oxy is unable to take any corrective actions to eliminate the cause and potential reoccurrence of a downstream third-party owned and operated gas plant's 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. Enterprise operations 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 Enterprise's facilities have equipment issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then prompts Oxy to route all its stranded gas not pushed into the Enterprise gas pipeline, 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 Enterprise personnel, who operate the sales gas pipeline, when possible, during these types of circumstances.</p>

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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  
  
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CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	10/20/2024