



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
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
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:** 10/22/2024**Duration of Event:** 15 Minutes**MCF Flared:** 215**Start Time:** 06:10 PM**End Time:** 06:25 PM**Cause:** Emergency Flare > Third Party Downstream Activity > Enterprise Central Station > Emergency Shutdown > Gas Detection**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 central station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to faulty gas detection sensor alarms issues on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger flaring to occur at the Sand Dunes South Corridor CTB. 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.

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, Enterprise central station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to faulty gas detection sensor alarms issues on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger flaring to occur at the Sand Dunes South Corridor CTB. 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. 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. As soon as flaring was triggered, 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. 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 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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District II
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Phone:(575) 748-1283 Fax:(575) 748-9720
District III
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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 399455

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 399455
	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 399455

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	399455
	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	[fAPP2127048458] Sand Dunes South Corridor CTB

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, 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 > Third Party Downstream Activity > Enterprise Central Station > Emergency Shutdown > Gas Detection

Representative Compositional Analysis of Vented or Flared Natural Gas	
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 (C02) 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 Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 399455

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 399455
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/22/2024
Time vent or flare was discovered or commenced	06:10 PM
Time vent or flare was terminated	06:25 PM
Cumulative hours during this event	0

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: 215 Mcf Recovered: 0 Mcf Lost: 215 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	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	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 central station, a third party owned and operated downstream facility, had a sudden and unexpected ESD due to faulty gas detection sensor alarms issues on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger flaring to occur at the Sand Dunes South Corridor CTB. 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.
	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, Enterprise central station, a third party owned

Steps taken to limit the duration and magnitude of vent or flare	and operated downstream facility, had a sudden and unexpected ESD due to faulty gas detection sensor alarms issues on their end, which in turn caused an emergency shutdown of their station. Once Enterprise's facility shutdown, this caused high line pressure to occur, which then caused the field to pressure up automatically and trigger flaring to occur at the Sand Dunes South Corridor CTB. 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. 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. As soon as flaring was triggered, 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. 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 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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ACKNOWLEDGMENTS

Action 399455

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 399455
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☒	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (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 399455

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	Action Number: 399455
	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.	11/4/2024