



Certificate of Analysis

Number: 6030-22090406-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Sep. 28, 2022

Field: Red Tank
Station Name: Red Tank 27-28 CTB Check
Station Number: 16200C
Station Location: CTB
Sample Point: Meter run
Formation: Monthly
County: Eddy, NM
Type of Sample: : Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: : Fill and Purge
Sampling Company: : SPL

Sampled By: Raul Salazar
Sample Of: Gas Spot
Sample Date: 09/26/2022
Sample Conditions: 80 psig, @ 95.05 °F Ambient: 89 °F
Effective Date: 09/26/2022
PO/Ref. No: 4500934807
Method: GPA-2261M
Cylinder No: 1111-006946
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 09/20/2022 0:00 AM
Analyzed: 09/28/2022 14:19:37 by EBH

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	0.00050	0.001	
Nitrogen	1.994	1.99935	2.435	
Carbon Dioxide	2.141	2.14646	4.107	
Methane	71.991	72.19178	50.350	
Ethane	12.011	12.04395	15.744	3.216
Propane	6.716	6.73490	12.911	1.853
Iso-Butane	0.852	0.85457	2.159	0.279
n-Butane	2.185	2.19098	5.536	0.690
Iso-Pentane	0.463	0.46419	1.456	0.170
n-Pentane	0.527	0.52807	1.656	0.191
Hexanes	0.322	0.32240	1.208	0.132
Heptanes	0.302	0.30314	1.321	0.140
Octanes	0.178	0.17860	0.887	0.091
Nonanes Plus	0.041	0.04111	0.229	0.023
	99.723	100.0000	100.000	6.785

Calculated Physical Properties

Calculated Molecular Weight	Total	C9+
Compressibility Factor	23.00	128.26
Relative Density Real Gas	0.9958	
	0.7972	4.4283

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1298.1	6974.4
Water Sat. Gas Base BTU	1276.0	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1292.7	6974.4
Ideal, Gross HV - Wet	1270.1	6852.4

Comments: H₂S Field Content 5 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:** Red Tank 27-28 CTB**Flare Date:** 12/01/2022**Duration of event:** 7 Hours 10 Minutes**MCF Flared:** 86**Start Time:** 05:00 AM**End Time:** 12:10 PM**Cause:** Emergency Flare > Downstream Activity > Third Party > MARK WEST > Preakness Gas Plant > Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:.**

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, MPLX Preakness Gas plant began having booster equipment issues, which prompted them to curtail their intake of gas from the Red Tank Boo 26 compressor station, which in turn caused, intermittent high line pressure spikes which subsequently triggered intermittent flaring instances to occur at the Red Tank 27-28 CTB. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from MARKWEST. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at MARKWEST, a downstream gathering system facility, which are both downstream of Oxy's control.

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. 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 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, MPLX Preakness Gas plant began having booster equipment issues, which prompted them to curtail their intake of gas from the Red Tank Boo 26 compressor station, which in turn caused, intermittent high line pressure spikes which subsequently triggered intermittent flaring instances to occur at the Red Tank 27-28 CTB. During each instance of flaring, Oxy production techs made choke changes so that field pressure would stay

below the flare trigger setpoints of the Red Tank 27-28 CTB to cease flaring. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from MARKWEST. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at MARKWEST, a downstream gathering system facility, which are both downstream of Oxy's control.

3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

Oxy is limited in the corrective actions to eliminate the cause and potential reoccurrence of a MARKWEST gas flow pipeline restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid, prevent from happening or reoccurring. MARKWEST's downstream facilities and associated facilities, may have issues which will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When MARKWEST has downstream activity issues or greatly struggles to handle the volume of gas being sent to them by Oxy, MARKWEST then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas not pushed into the MARKWEST 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 keep continually communicate with MARKWEST personnel during these types of situations and when possible, engage in emergency alternative compression reaction strategies.

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District IV
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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 168601

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 168601
	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 168601

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 168601
	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	[fAPP2127030589] RED TANK 27-28 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 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 > Downstream Activity > Third Party > MARK WEST > Preakness Gas Plant > 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	72
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	2
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 168601

QUESTIONS (continued)

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	Action Number: 168601
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	12/01/2022
Time vent or flare was discovered or commenced	05:00 AM
Time vent or flare was terminated	12:10 PM
Cumulative hours during this event	7

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: 86 Mcf Recovered: 0 Mcf Lost: 86 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	[258315] MARKWEST ENERGY OPERATING CO 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, MPLX Preakness Gas plant began having booster equipment issues, which prompted them to curtail their intake of gas from the Red Tank Boo 26 compressor station, which in turn caused, intermittent high line pressure spikes which subsequently triggered intermittent flaring instances to occur at the Red Tank 27-28 CTB. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from MARKWEST. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at MARKWEST, a downstream gathering system facility, which are both downstream of Oxy's control.
Steps taken to limit the duration and magnitude of vent or flare	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 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 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, MPLX Preakness Gas plant began having booster equipment issues, which prompted them to curtail their intake of gas from the Red Tank Boo 26 compressor station, which in turn caused, intermittent high line pressure spikes which subsequently triggered intermittent flaring instances to occur at the Red Tank 27-28 CTB. During each instance of flaring, Oxy production techs made choke changes so that field pressure would stay below the flare trigger setpoints of the Red Tank 27-28 CTB to cease flaring. This event could not have been foreseen, avoided or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel from MARKWEST. Red Tank Boo 26 compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at MARKWEST, a downstream gathering system facility, which are both downstream of Oxy's control.
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ACKNOWLEDGMENTS

Action 168601

ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 168601
	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 168601

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	Action Number: 168601
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	12/19/2022