

## **Volumetrics Inc.**

3710 East Rio Grande St, Victoria, TX-77901 Phone: 361-827-4024

Company: OXY USA INC
Field/Location: NMSW

Station Name: CORRAL 1 COMP STATION ENERGY TRANSFER CHECK

Station Number: 18000C
Sample Date: 2/23/22 9:45 AM
Analysis Date: 3/7/22 12:45 PM
Instrument: INFICON
Calibration/Verification Date: 3/7/2022

Calibration/Verification Date: 3/7/2022 Heat Trace used: YES 
 Work Order
 4000424956

 Sampled by:
 OXY/JE

 Sample Type:
 SPOT-CYLINDER

Sample Temperature (F): 93
Sample Pressure (PSIG): 1230
Flow rate (MCF/Day): 16257

Sampling method: FILL & EMPTY

23

Cylinder Number: 27764

Ambient Temperature (F):

## **NATURAL GAS ANALYSIS: GPA 2261**

	Un-Normalized	Normalized	GPM	GPM	GPM
Components	Mol%	Mol%	14.650	14.730	15.025
Hydrogen Sulfide	0.0000	0.0000			
Nitrogen	1.4221	1.4522			
Methane	74.0532	75.6211			
Carbon Dioxide	0.1772	0.1809			
Ethane	12.0085	12.2627	3.273	3.291	3.357
Propane	6.0764	6.2050	1.706	1.716	1.750
Isobutane	0.8466	0.8645	0.282	0.284	0.290
N-butane	1.9936	2.0358	0.641	0.644	0.657
Isopentane	0.4162	0.4250	0.155	0.156	0.159
N-Pentane	0.4438	0.4532	0.164	0.165	0.168
Hexanes Plus	0.4893	0.4996	0.218	0.219	0.223
Total	97.9269	100.0000			

Hexanes plus split (60%-30%-10%)

Physical Properties (Calculated)	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.440	6.475	6.604
Total GPM Iso-Pentane+	0.537	0.540	0.550
Compressibility (Z)	0.9961	0.9961	0.9960
Specific Gravity ( Air=1) @ 60 °F	0.7562	0.7562	0.7563
Molecular Weight	21.826	21.826	21.826
Gross Heating Value	14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft <sup>3</sup> )	1293.2	1300.3	1326.4
Wet, Real (BTU/Ft <sup>3</sup> )	1270.7	1277.6	1303.3
Dry, Ideal (BTU/Ft <sup>3</sup> )	1288.2	1295.2	1321.2
Wet, Ideal (BTU/Ft <sup>3</sup> )	1265.8	1272.7	1298.2

Temperature base 60 °F

Comment: FIELD H2S = 0 PPM

Verified by

Mostaq Ahammad Petroleum Chemist Approved by

Deann Friend

Deann Friend Laboratory Manager

## **UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM**

Facility: Corral 1S CS Flare Date: 11/10/2022

**Duration of event:** 1 Hour 45 Minutes **MCF Flared:** 61

Start Time: 03:32 AM End Time: 05:17 AM

Cause: Oxy > Vapor Recovery Tower (VRT) > Malfunction

Method of Flared Gas Measurement: Gas Flare Meter

**Comments:** 

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

The emissions were caused by the sudden, 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 maintenance practices. In this case, the facility's vapor recovery tower high leveled which in turn caused and emergency shutdown of the unit. As soon as Oxy production techs, who were working in the area, received malfunction alarms, they were able to drive to the facility to determine cause and resolve the issue. This event is out of OXY's control, yet 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 rather than vent, when possible, 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 emissions. In this case, the facility's vapor recovery tower high leveled, which in turn, caused and emergency shutdown of the VRT unit and venting to unexpectantly occur. As soon as Oxy production techs, who were working in the area, received equipment malfunction alarms, they were able to drive to the facility to determine cause and resolve the issue. Upon arrival to the facility, the production techs were able to discover the levels in the VRT were high, which prompted a malfunction alarm. The production techs were able to bring the levels in the VRT down, clear the equipment malfunction alarm and reset the equipment back to normal operations, which ceased venting. 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 limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of equipment malfunctions as notwithstanding vapor recovery tower design and operation, they are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable and unexpected which can cause sudden and unexpected malfunctions to occur, thereby, triggering the equipment sensors to automatically shut down the unit to avoid catastrophic damage to the internal equipment components.

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 162784

#### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	162784
	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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# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 162784

Phone:(505) 476-3470 Fax:(505) 476-3462		
C	UESTIONS	
Operator:	OLOTIONO	OGRID:
OXY USA INC P.O. Box 4294		16696 Action Number:
Houston, TX 772104294		162784
		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	Unavailable.	
Incident Facility	[fAPP2126641362] CORRA	AL #1 COMP STATION
Determination of Reporting Requirements		
Answer all questions that apply. The Reason(s) statements are calculated based on your answers a	nd may provide addional guidanc	е
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	r 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 ma	y 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 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	Venting > Oxy > Vapor Rec	covery Tower (VRT) > Malfunction
Representative Compositional Analysis of Vented or Flared Natural Gas		
Please provide the mole percent for the percentage questions in this group.	70	
Methane (CH4) percentage	76	
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	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 spe	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.	
Oxygen (02) percentage quality requirement	Not answered.	

QUESTIONS, Page 2

Action 162784

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District IV 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**

QUESTI	ONS (continued)
Operator:	OGRID:
OXY USA INC P.O. Box 4294	16696 Action Number:
Houston, TX 772104294	162784 Action Type:
	[C-129] Venting and/or Flaring (C-129)
QUESTIONS	
Date(s) and Time(s)	
Date vent or flare was discovered or commenced	11/10/2022
Time vent or flare was discovered or commenced	03:32 AM
Time vent or flare was terminated	05:17 AM
Cumulative hours during this event	2
Measured or Estimated Volume of Vented or Flared Natural Gas	
measured of Estimated Volume of Vented of Flated Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Vented   Released: 61 Mcf   Recovered: 0 Mcf   Lost: 61 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
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.
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 were caused by the sudden, 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 maintenance practices. In this case, the facility's vapor recovery tower high leveled which in turn caused and emergency shutdown of the unit. As soon as Oxy productior techs, who were working in the area, received malfunction alarms, they were able to drive to the facility to determine cause and resolve the issue. This event is out of OXY's control, yet 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	It is OXY's policy to route its stranded gas to a flare rather than vent, when possible, 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 emissions. In this case, the facility's vapor recovery tower high leveled, which in turn, caused and emergency shutdown of the VRT unit and venting to unexpectantly occur. As soon as Oxy production techs, who were working in the area, received equipment malfunction alarms, they were able to drive to the facility to determine cause and resolve the issue. Upon arrival to the facility, the production techs were able to discover the levels in the VRT were high, which prompted a malfunction alarm. The production techs were able to bring the levels in the VRT down, clear the equipment malfunction alarm and reset the equipment back to normal operations, which ceased venting. 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 limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of equipment malfunctions as notwithstanding vapor recovery tower design and operation, they are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable and unexpected which can cause sudden and unexpected malfunctions to occur, thereby, triggering the equipment sensors to automatically shut down the unit to avoid catastrophic damage to the internal equipment components.

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ACKNOWLEDGMENTS

Action 162784

## **ACKNOWLEDGMENTS**

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OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	162784
	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.
V	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 162784

## **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	162784
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

## CONDITIONS

Created By	Condition	Condition Date
marialuna	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.	11/30/2022