



Volumetrics Inc.

3710 East Rio Grande St, Victoria, TX-77901

Phone: 361-827-4024

Company: OXY USA INC
Field/Location : NMSW
Station Name : CEDAR CANYON 28 CTB PRODUCTION (FMP)
Station Number : 14948P
Sample Date: 12/2/21 12:09 PM
Analysis Date: 12/8/21 12:50 PM
Instrument: INFICON
Calibration/Verification Date: 12/8/2021
Heat Trace used: YES

Work Order: 4000409591
Sampled by: VOLUMETRICS/RA
Sample Type : SPOT-CYLINDER
Sample Temperature (F): 79.71
Sample Pressure (PSIG): 106.69
Flow rate (MCF/Day): 5307.62
Ambient Temperature (F): 70
Sampling method: FILL & EMPTY
Cylinder Number: 5048

NATURAL GAS ANALYSIS: GPA 2261

Components	Un-Normalized Mol%	Normalized Mol%	GPM 14.650	GPM 14.730	GPM 15.025
Hydrogen Sulfide	0.0000	0.0000			
Nitrogen	1.4604	1.4913			
Methane	74.1707	75.7392			
Carbon Dioxide	0.1406	0.1436			
Ethane	11.8985	12.1501	3.244	3.262	3.327
Propane	5.8873	6.0118	1.653	1.662	1.696
Isobutane	0.7964	0.8132	0.266	0.267	0.272
N-butane	1.9178	1.9584	0.616	0.620	0.632
Isopentane	0.4481	0.4576	0.167	0.168	0.171
N-Pentane	0.4910	0.5014	0.181	0.182	0.186
Hexanes(C6's)	0.2913	0.2975	0.122	0.123	0.125
Heptanes (C7's)	0.2779	0.2837	0.131	0.131	0.134
Octanes (C8's)	0.1235	0.1261	0.064	0.065	0.066
Nonanes Plus (C9+)	0.0256	0.0261	0.015	0.015	0.015
Total	97.9291	100.0000			

Physical Properties (Calculated)

	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.459	6.495	6.624
Total GPM Iso-Pentane+	0.680	0.684	0.697
Compressibility (Z)	0.9961	0.9960	0.9960
Specific Gravity (Air=1) @ 60 °F	0.7608	0.7608	0.7608
Molecular Weight	21.957	21.957	21.957

Gross Heating Value

	14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft ³)	1300.5	1307.7	1333.9
Wet, Real (BTU/Ft ³)	1277.7	1284.8	1310.5
Dry, Ideal (BTU/Ft ³)	1295.4	1302.5	1328.5
Wet, Ideal (BTU/Ft ³)	1272.7	1279.7	1305.3

Temperature base 60 °F

Comment: FIELD H2S =0 PPM

Verified by

Mostaq Ahammad
 Petroleum Chemist

Approved by

Deann Friend
 Laboratory Manager

UPSET VENTING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Cedar Canyon 28-4 CTB**Venting Date:** 01-19-2023**Duration of event:** 19 Hours 51 Minutes**MCF Vented:** 111**Start Time:** 03:16 AM**End Time:** 11:07 PM**Cause:** Venting > VRU > Freezing Weather Conditions > Equipment Issues**Method of Gas Measurement:** Estimated Vent Calculations**Comments:** N/A

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

This event was 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, due to extreme freezing weather conditions and temperatures, the drain line on the facility's VRU froze, which caused the unit to unexpectedly malfunction and automatically shut down. The facility and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its equipment insulated and heat traced. The VCU on location was running to help with venting but could not keep up with the venting volume from time to time, consequential from the VRU being down, which was caused from the drain line being frozen, which in turn prompted intermittent venting to occur. All facility operations and equipment were working as designed prior to the sudden and without warning shutdown of the VRU. This event was out Oxy's control, yet every effort was made to minimize the emissions.

2. Steps Taken to limit duration and magnitude of venting or flaring:

In this case, due to extreme freezing weather conditions and temperatures, the drain line on the facility's VRU froze, which caused the unit to unexpectedly malfunction and automatically shut down. The facility and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its equipment insulated and heat traced. The VCU on location was running to help with venting but could not keep up with the venting volume from time to time, consequential from the VRU being down, which was caused from the drain line being frozen, which in turn prompted intermittent venting to occur. As soon as the VRU suddenly and without warning malfunctioned and shutdown, the unit's alarm was sent to the on-call service to dispatch an Oxy production technician. Once the Oxy production technician received the on-call notice and arrived at the facility, he quickly inspected the VRU unit and thawed out the drain line. The Oxy production tech remained in the area to manually drain the scrubber throughout the day, if necessary, and inspected the pumps to ensure that scrubber is draining automatically. All facility operations and equipment were working as designed prior to the sudden and without warning shutdown of the VRU. This event was out Oxy's control, yet every effort was made to minimize the emissions.

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 VRU malfunction and shutdown. Notwithstanding proper VRU design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause VRU unit malfunctions to occur without warning or advance notice, even during extreme weather conditions and temperatures. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its VRU equipment preventative maintenance program for this facility.

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District IV
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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 182583

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 182583
	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 182583

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	182583
	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	[fAB1901048503] CEDAR CANYON 28-4 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	Yes
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	Venting > VRU > Freezing Weather Conditions > 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	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 (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 182583

QUESTIONS (continued)

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	Action Number: 182583
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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/19/2023
Time vent or flare was discovered or commenced	03:16 AM
Time vent or flare was terminated	11:07 PM
Cumulative hours during this event	20

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other Other (Specify) Natural Gas Vented Released: 111 Mcf Recovered: 0 Mcf Lost: 111 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Estimated Vent Calculations
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	This event was 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, due to extreme freezing weather conditions and temperatures, the drain line on the facility's VRU froze, which caused the unit to unexpectedly malfunction and automatically shut down. The facility and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its equipment insulated and heat traced. The VCU on location was running to help with venting but could not keep up with the venting volume from time to time, consequential from the VRU being down, which was caused from the drain line being frozen, which in turn prompted intermittent venting to occur. All facility operations and equipment were working as designed prior to the sudden and without warning shutdown of the VRU. This event was out Oxy's control, yet every effort was made to minimize the emissions.
Steps taken to limit the duration and magnitude of vent or flare	In this case, due to extreme freezing weather conditions and temperatures, the drain line on the facility's VRU froze, which caused the unit to unexpectedly malfunction and automatically shut down. The facility and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its equipment insulated and heat traced. The VCU on location was running to help with venting but could not keep up with the venting volume from time to time, consequential from the VRU being down, which was caused from the drain line being frozen, which in turn prompted intermittent venting to occur. As soon as the VRU suddenly and without warning malfunctioned and shutdown, the unit's alarm was sent to the on-call service to dispatch an Oxy production technician. Once the Oxy production technician received the on-call notice and arrived at the facility, he quickly inspected the VRU unit and thawed out the drain line. The Oxy production tech remained in the area to manually drain the scrubber throughout the day, if necessary, and inspected the pumps to ensure that scrubber is draining automatically. All facility operations and equipment were working as designed prior to the sudden and without warning shutdown of the VRU. This event was out Oxy's control, yet every effort was made to minimize the emissions.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions to eliminate the cause and potential reoccurrence of a VRU malfunction and shutdown. Notwithstanding proper VRU design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause VRU unit malfunctions to occur without warning or advance notice, even during extreme weather conditions and temperatures. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its VRU equipment preventative maintenance program for this facility.

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ACKNOWLEDGMENTS

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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 182583

CONDITIONS

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	Action Number: 182583
	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.	2/3/2023