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

Company:	OXY USA INC	**Work Order:**	4000535215
Field/Location :	NMSW	**Sampled by:**	OXY/JE
Station Name :	CEDAR CANYON TO ENTERPRISE	**Sample Type :**	SPOT-CYLINDER
Station Number :	NA	**Sample Temperature (F):**	NA
Sample Date:	3/10/22 2:40 PM	**Sample Pressure (PSIG):**	1237
Analysis Date:	3/17/22 8:30 PM	**Flow rate (MCF/Day):**	NA
Instrument:	INFICON	**Ambient Temperature (F):**	50
Calibration/Verification Date:	3/17/2022	**Sampling method:**	FILL & EMPTY
Heat Trace used:	YES	**Cylinder Number:**	27772

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	1.4010	1.4329			
Methane	73.2835	74.9537			
Carbon Dioxide	0.1272	0.1301			
Ethane	12.0004	12.2739	3.277	3.295	3.361
Propane	6.1002	6.2392	1.716	1.726	1.760
Isobutane	0.8643	0.8840	0.289	0.290	0.296
N-butane	2.1629	2.2122	0.696	0.700	0.714
Isopentane	0.5139	0.5256	0.192	0.193	0.197
N-Pentane	0.5755	0.5886	0.213	0.214	0.218
Hexanes(C6's)	0.3556	0.3637	0.149	0.150	0.153
Heptanes (C7's)	0.2741	0.2804	0.129	0.130	0.132
Octanes (C8's)	0.1001	0.1024	0.052	0.053	0.054
Nonanes Plus (C9+)	0.0130	0.0133	0.007	0.008	0.008
Total	**97.7718**	**100.0000**			

Physical Properties (Calculated)	**14.650 psia**	**14.730 psia**	**15.025 psia**
Total GPM Ethane+	6.721	6.758	6.893
Total GPM Iso-Pentane+	0.743	0.747	0.762
Compressibility (Z)	0.9959	0.9959	0.9958
Specific Gravity (Air=1) @ 60 °F	0.7713	0.7713	0.7714
Molecular Weight	22.257	22.257	22.257

Gross Heating Value	**14.650 psia**	**14.730 psia**	**15.025 psia**
Dry, Real (BTU/Ft^3)	1318.1	1325.3	1352.0
Wet, Real (BTU/Ft^3)	1295.0	1302.1	1328.3
Dry, Ideal (BTU/Ft^3)	1312.7	1319.9	1346.3
Wet, Ideal (BTU/Ft^3)	1289.7	1296.8	1322.7

Temperature base 60 °F

Comment: FIELD H2S =0 PPM

Verified by

Mostaq Ahammad
Petroleum Chemist

Approved by

Deann Friend
Deann Friend
Laboratory Manager

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Cedar Canyon CPD

Flare Date: 12/24/2022

Duration of event: 4 Hours

MCF Flared: 550

Start Time: 02:50 AM

End Time: 06:50 AM

Cause: Emergency Flare > Downstream Activity > Enterprise > Facility Equipment > Extreme Freezing Conditions & Temperatures

Method of Flared Gas Measurement: Gas Flare Meter

Comments: Combined volume of all intermittent flaring occurrences: 550 MCF.

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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, extreme freezing weather conditions and below 15-degree temperatures, affected third party pipeline operator, Enterprise's, facility equipment, which caused their equipment to malfunction and subsequently shut down, which then prompted emergency shutdowns to occur multiple times through the mid-morning, afternoon and evening hours, which in turn, affected Oxy's ability to send its gas to Enterprise, thereby, triggering flaring instances to occur. Oxy's equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced, and having methanol readily available to assist with freezing issues, if and when they occurred. Third-party pipeline operator, Enterprise, who owns and operates the sales gas service pipeline, did not provide advance notice of the multiple disruptions to their gas pipeline due to their downstream facility experienced compression issues and then subsequently had facility freezing issues. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.

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, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon notice of flaring, malfunction gas compressor unit and/or multiple unit shutdown alarms, increased sensor line pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, extreme freezing weather conditions and below 15-degree temperatures, affected third party pipeline

operator, Enterprise's, facility equipment, which caused their equipment to malfunction and subsequently shut down, which then prompted emergency shutdowns to occur multiple times through the mid-morning, afternoon and evening hours, which in turn, affected Oxy's ability to send its gas to Enterprise, thereby, triggering flaring instances to occur. Oxy's equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced, and having methanol readily available to assist with freezing issues, if and when they occurred. In addition, the flare has an automated mitigation optimizer, which cut injection rates to wells in the field to reduce injection and sales gas to mitigate emissions. Third-party pipeline operator, Enterprise, who owns and operates the sales gas service pipeline, did not provide advance notice of the multiple disruptions to their gas pipeline due to their downstream facility experienced compression issues and then subsequently had facility freezing issues. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.

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 an Enterprise 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. Enterprise's downstream facilities and associated facilities may have facility equipment issues which will reoccur from time to time, including due to extreme weather conditions and temperatures, which, can trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise has downstream activity 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 of 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 keep continually communicate with Enterprise personnel during these types of situations and when possible, engage in emergency alternative compression reaction strategies.

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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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 191540
	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 191540

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 191540
	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	**[fAPP2126642013] CEDAR CANOYN GAS GATHERING**

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional 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 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 > Downstream Activity > Enterprise > Facility Equipment > Extreme Freezing Conditions & Temperatures

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	75
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 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 (02) percentage quality requirement	*Not answered.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 191540
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	12/24/2022
Time vent or flare was discovered or commenced	02:50 AM
Time vent or flare was terminated	06:50 AM
Cumulative hours during this event	4

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: 550 Mcf | Recovered: 0 Mcf | Lost: 550 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	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, extreme freezing weather conditions and below 15-degree temperatures, affected third party pipeline operator, Enterprise's, facility equipment, which caused their equipment to malfunction and subsequently shut down, which then prompted emergency shutdowns to occur multiple times through the mid-morning, afternoon and evening hours, which in turn, affected Oxy's ability to send its gas to Enterprise, thereby, triggering flaring instances to occur. Oxy's equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced, and having methanol readily available to assist with freezing issues, if and when they occurred. Third-party pipeline operator, Enterprise, who owns and operates the sales gas service pipeline, did not provide advance notice of the multiple disruptions to their gas pipeline due to their downstream facility experienced compression issues and then subsequently had facility freezing issues. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.
Steps taken to limit the duration and magnitude of vent or flare	This event was previously submitted under major notification nAPP2235882436 but was cancelled due to a wrong facility ID. In this case, extreme freezing weather conditions and below 15-degree temperatures, affected third party pipeline operator, Enterprise's, facility equipment, which caused their equipment to malfunction and subsequently shut down, which then prompted emergency shutdowns to occur multiple times through the mid-morning, afternoon and evening hours, which in turn, affected Oxy's ability to send its gas to Enterprise, thereby, triggering flaring instances to occur. Oxy's equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced, and having methanol readily available to assist with freezing issues, if and when they occurred. In addition, the flare has an automated mitigation optimizer, which cut injection rates to wells in the field to reduce injection and sales gas to mitigate emissions. Third-party pipeline operator, Enterprise, who owns and operates the sales gas service pipeline, did not provide advance notice of the multiple disruptions to their gas pipeline due to their downstream facility experienced compression issues and then subsequently had facility freezing issues. This incident was completely out of OXY's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently during this event. The Cedar Canyon CDP flare is a gas gathering flare system for multiple tank batteries across Oxy's Cedar Canyon area. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.
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 an Enterprise 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. Enterprise's downstream facilities and associated facilities may have facility equipment issues which will reoccur from time to time, including due to extreme weather conditions and temperatures, which, can trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise has downstream activity 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 of 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 keep continually communicate with Enterprise personnel during these types of situations and when possible, engage in emergency alternative compression reaction strategies.

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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 191540
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☑	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.
☑	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 191540

CONDITIONS

Operator:	OGRID:
OXY USA INC P.O. Box 4294 Houston, TX 772104294	16696
	Action Number: 191540
	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.	2/28/2023