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

Company:	OXY USA INC	**Work Order**	4000501489
Field/Location :	NMSW	**Sampled by:**	OXY/JE
Station Name :	CORRAL COMPRESSOR STA 2 SOUTH FUEL SKID OUTLE	**Sample Type :**	SPOT-CYLINDER
Station Number :	NA	**Sample Temperature (F):**	NA
Sample Date:	2/23/22 1:30 PM	**Sample Pressure (PSIG):**	125
Analysis Date:	3/7/22 11:00 AM	**Flow rate (MCF/Day):**	NA
Instrument:	INFICON	**Ambient Temperature (F):**	23
Calibration/Verification Date:	3/7/2022	**Sampling method:**	FILL & EMPTY
Heat Trace used:	YES	**Cylinder Number:**	27784

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	1.3240	1.3598			
Methane	75.6525	77.7008			
Carbon Dioxide	0.1877	0.1928			
Ethane	11.5036	11.8151	3.153	3.170	3.234
Propane	5.8586	6.0172	1.654	1.663	1.696
Isobutane	0.7572	0.7777	0.254	0.255	0.260
N-butane	1.6243	1.6683	0.525	0.528	0.538
Isopentane	0.2101	0.2158	0.079	0.079	0.081
N-Pentane	0.1809	0.1858	0.067	0.068	0.069
Hexanes Plus	0.0650	0.0667	0.029	0.029	0.030
Total	**97.3638**	**100.0000**			

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

Physical Properties (Calculated)	**14.650 psia**	**14.730 psia**	**15.025 psia**
Total GPM Ethane+	5.761	5.792	5.908
Total GPM Iso-Pentane+	0.175	0.176	0.179
Compressibility (Z)	0.9965	0.9965	0.9964
Specific Gravity (Air=1) @ 60 °F	0.7242	0.7242	0.7243
Molecular Weight	20.911	20.911	20.911

Gross Heating Value	**14.650 psia**	**14.730 psia**	**15.025 psia**
Dry, Real (BTU/Ft^3)	1244.9	1251.8	1276.9
Wet, Real (BTU/Ft^3)	1223.3	1230.0	1254.7
Dry, Ideal (BTU/Ft^3)	1240.6	1247.4	1272.3
Wet, Ideal (BTU/Ft^3)	1219.0	1225.7	1250.2

Temperature base 60 °F

Comment: FIELD H2S =0 PPM

Verified by

Mostaq Ahammad
Petroleum Chemist

Approved by

Deann Friend
Laboratory Manager

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Corral 2 South CS **Flare Date:** 12/22/2022

Duration of event: 1 Hour 59 minutes **MCF Flared:** 107

Start Time: 10:00 PM **End Time:** 11:59 PM

Cause: Emergency Flare > Extreme Freezing Conditions & Temperatures > Facility Equipment Issues

Method of Flared Gas Measurement: Gas Flare Meter

Comments: This upset event was not caused by any wells associated with the facility.

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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 temperatures affected multiple gas compressor units and caused them to malfunction and subsequently shut down, which then triggered flaring to occur. The facility and the equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced. Notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally prior to the sudden and without warning malfunctions due to extreme freezing weather conditions and temperatures. Since the gas compression equipment was shutdown, which was brought on by unexpected malfunctions, prompted by extreme weather conditions and temperatures, there was no gas takeaway, and thus field psi increased until set psi levels were reached, which in turn, triggered flaring. The facility's gas compression equipment was working as designed and operated normally prior to the sudden and without warning malfunction and automatic shutdown of the compression equipment. These incidents were 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.

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 temperatures affected multiple gas compressor units and

caused them to malfunction and subsequently shut down, which then triggered flaring to occur. The facility and the equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced. When the extreme weather and temperatures affected the compression equipment, causing malfunctions and flaring to occur, Oxy field personnel received the alarms and responded accordingly, while the field optimizer automatically begin shutting in a few wells to minimize flaring. In addition, in anticipation of the impending weather, OXY had a compressor mechanic in reserve, so that any malfunctions could be handled in a timely manner, weather permitting. Oxy field personnel and the compression mechanic diligently worked together to thaw out frozen lines and increased the methanol injection rates to potentially prevent future freezing events. Once all compressors were back online and running at optimized operation, did flaring cease.

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

Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause compressor 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 compression 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 compression equipment preventative maintenance program for this unit and continue to monitor the methanol injection rates for the equipment at this facility.

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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: 177759
	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 177759

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 177759
	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	**[fAPP2126640958] CORRAL #2 SOUTH COMP STATION**

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, 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 > Extreme Freezing Conditions & Temperatures > Facility 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	78
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: 177759
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	12/22/2022
Time vent or flare was discovered or commenced	10:00 PM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	2

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	Cause: Freeze | Other (Specify) | Natural Gas Flared | Released: 107 Mcf | Recovered: 0 Mcf | Lost: 107 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	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 extreme freezing weather conditions and temperatures affected multiple gas compressor units and caused them to malfunction and subsequently shut down, which then triggered flaring to occur. The facility and the equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced. Notwithstanding compressor engine design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally prior to the sudden and without warning malfunctions due to extreme freezing weather conditions and temperatures. Since the gas compression equipment was shutdown, which was brought on by unexpected malfunctions, prompted by extreme weather conditions and temperatures, there was no gas takeaway, and thus field psi increased until set psi levels were reached, which in turn, triggered flaring. The facility's gas compression equipment was working as designed and operated normally prior to the sudden and without warning malfunction and automatic shutdown of the compression equipment. These incidents were 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.
Steps taken to limit the duration and magnitude of vent or flare	In this case extreme freezing weather conditions and temperatures affected multiple gas compressor units and caused them to malfunction and subsequently shut down, which then triggered flaring to occur. The facility and the equipment were winterized as part of Oxy's usual operations practices for extreme cold weather, by having its facility equipment insulated and heat traced. When the extreme weather and temperatures affected the compression equipment, causing malfunctions and flaring to occur, Oxy field personnel received the alarms and responded accordingly, while the field optimizer automatically begin shutting in a few wells to minimize flaring. In addition, in anticipation of the impending weather, OXY had a compressor mechanic in reserve, so that any malfunctions could be handled in a timely manner, weather permitting. Oxy field personnel and the compression mechanic diligently worked together to thaw out frozen lines and increased the methanol injection rates to potentially prevent future freezing events. Once all compressors were back online and running at optimized operation, did flaring cease.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause compressor 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 compression 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 compression equipment preventative maintenance program for this unit and continue to monitor the methanol injection rates for the equipment at this facility.

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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 177759
	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 177759

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 177759
	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.	1/20/2023