



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 2S**Flare Date:** 10/19/2023**Duration of Event:** 12 Hours 40 Minutes**MCF Flared:** 191**Start Time:** 10:50 AM**End Time:** 11:30 PM**Cause:** Emergency Flare > Opening of Corral Bluff Wells & Multiple Compression Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter

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

In this case, gas had to be flared rather than be compressed due to the opening of several Corral Bluff wells, which in turn began surging more gas than the compression equipment could handle, which then prompted sudden and unexpected compression malfunction to occur throughout a 24-hr period. Within a 24-hr period, there were several brief intermittent flaring episodes. All compression were running at maximized operational capacity when the Corral Bluff wells were being opened. Well surges occur from time to time, as they are unforeseeable and unanticipated, and can surge a large volume of gas that compression equipment is not able to handle all at once, which triggers unexpected malfunctions to occur causing an automatic shutdown of the compression units, which in turn prompts unanticipated flaring to occur. 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. Compressor engines are designed to operate in a precise manner and when unexpected large volumes of well gas surges, it disrupts the operating manner, prompts a malfunction to occur, which then robs the compression engine of power, thus, causing an automatic shutdown of the unit. These brief intermittent flaring instances event could not have been foreseen, avoided, or prevented from happening as they occurred with no advance notice or warning. The duration and volume of this event is a collective of all flaring instances within a 24 hr-period.

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. In this case, gas had to be flared rather than be compressed due to the opening of several Corral Bluff wells, which in turn began surging more gas than the compression equipment could handle, which then prompted sudden and unexpected compression malfunction to occur throughout a 24-hr period. Within a 24-hr period, there were several brief intermittent flaring episodes. All compression were running at maximized operational capacity when the Corral Bluff wells were being opened. Well surges occur from time to time, as they are unforeseeable and unanticipated, and can surge a large volume of gas that compression equipment is not able to handle all at once, which triggers unexpected malfunctions to occur causing an automatic shutdown of the compression units, which in turn prompts unanticipated flaring to occur. As soon as a flaring instance was triggered, Oxy field personnel assisted with ensuring field area's mitigation optimizers cut injection rates to wells in the field to reduce injection and

sales gas across the area so that field pressure would stay below the flare trigger setpoints to cease flaring, while also ensuring compression equipment was restarted. 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 unable to take any corrective actions to eliminate this cause and potential reoccurrence of well surges as wells will unpredictably surge from time to time, and affect the operation of compression equipment and therefore, is out of Oxy's control to prevent from happening or avoid. They only actions OXY field personnel can take during circumstances such as these, is to engage in constant communication with additional field personnel, flowback personnel, etc., regarding sudden and unexpected well surges, so that every effort is made to minimize emissions during these circumstances.

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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 282399

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 282399
	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 282399

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	282399
	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 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	Emergency Flare > Opening of Corral Bluff Wells & Multiple Compression 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 (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 282399

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/19/2023
Time vent or flare was discovered or commenced	10:50 AM
Time vent or flare was terminated	11:30 PM
Cumulative hours during this event	13

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: 191 Mcf Recovered: 0 Mcf Lost: 191 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	In this case, gas had to be flared rather than be compressed due to the opening of several Corral Bluff wells , which in turn began surging more gas than the compression equipment could handle, which then prompted sudden and unexpected compression malfunction to occurs throughout a 24-hr period. Within a 24-hr period, there were several brief intermittent flaring episodes. All compression were running at maximized operational capacity when the Corral Bluff wells were being opened. Well surges occur from time to time, as they are unforeseeable and unanticipated, and can surge a large of volume of gas that compression equipment is not able to handle all at once, which triggers unexpected malfunctions to occur causing an automatic shutdown of the compression units, which in turn prompts unanticipated flaring to occur. 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. Compressor engines are designed to operate in a precise manner and when unexpected large volumes of well gas surges, it disrupts the operating manner, prompts a malfunction to occur, which then robs the compression engine of power, thus, causing an automatic shutdown of the unit. These brief intermittent flaring instances event could not have been foreseen, avoided, or prevented from happening as they occurred with no advance notice or warning. The duration and volume of this event is a collective of all flaring instances within a 24 hr-period. It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable

Steps taken to limit the duration and magnitude of vent or flare	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. In this case, gas had to be flared rather than be compressed due to the opening of several Corral Bluff wells, which in turn began surging more gas than the compression equipment could handle, which then prompted sudden and unexpected compression malfunction to occurs throughout a 24-hr period. Within a 24-hr period, there were several brief intermittent flaring episodes. All compression were running at maximized operational capacity when the Corral Bluff wells were being opened. Well surges occur from time to time, as they are unforeseeable and unanticipated, and can surge a large of volume of gas that compression equipment is not able to handle all at once, which triggers unexpected malfunctions to occur causing an automatic shutdown of the compression units, which in turn prompts unanticipated flaring to occur. As soon as a flaring instance was triggered, Oxy field personnel assisted with ensuring field area's mitigation optimizers cut injection rates to wells in the field to reduce injection and sales gas across the area so that field pressure would stay below the flare trigger setpoints to cease flaring, while also ensuring compression equipment was restarted. 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 unable to take any corrective actions to eliminate this cause and potential reoccurrence of well surges as wells will unpredictably surge from time to time, and affect the operation of compression equipment and therefore, is out of Oxy's control to prevent from happening or avoid. They only actions OXY field personnel can take during circumstances such as these, is to engage in constant communication with additional field personnel, flowback personnel, etc., regarding sudden and unexpected well surges, so that every effort is made to minimize emissions during these circumstances.

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ACKNOWLEDGMENTS

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[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

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	Action Number: 282399
	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.	11/3/2023