

# **Volumetrics Inc.**

3710 East Rio Grande St, Victoria, TX-77901

Phone: 361-827-4024

**Work Order** Company: OXY USA INC 4000501489 Field/Location: **NMSW** Sampled by: OXY/JE SPOT-CYLINDER

Station Name: CORRAL COMPRESSOR STA 2 SOUTH FUEL SKID OUTLE Sample Type:

Sample Temperature (F): Station Number: NA Sample Pressure (PSIG): Sample Date: 2/23/22 1:30 PM 125 **Analysis Date:** 3/7/22 11:00 AM Flow rate (MCF/Day): NA Instrument: INFICON Ambient Temperature (F): 23

Sampling method: Calibration/Verification Date: 3/7/2022 FILL & EMPTY

Cylinder Number: Heat Trace used: YES 27784

# **NATURAL GAS ANALYSIS: GPA 2261**

	<b>Un-Normalized</b>	Normalized	GPM	GPM	GPM
Components	Mol%	Mol%	14.650	14.730	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	07 2629	100 0000			

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 <sup>3</sup> )	1244.9	1251.8	1276.9
Wet, Real (BTU/Ft <sup>3</sup> )	1223.3	1230.0	1254.7
Dry, Ideal (BTU/Ft <sup>3</sup> )	4040.0	1247.4	1272.3
Dry, luear (BTO/Ft)	1240.6	1247.4	1212.3

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 CS Flare Date: 07/27/2022

**Duration of event:** 01 Hour **MCF Flared:** 204

Start Time: 03:40 PM End Time: 04:40 PM

Cause: Compression Equipment Malfunctions > Corral Area > Several Facilities > Various Causes

Method of Flared Gas Measurement: Gas Flare Meter

Comments:.

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

In this case, there were multiple gas compression equipment issues at several facilities within the Corral area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Corral 2 South compressor station, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment. In the first instance, in which a compressor mechanic was needed, due to bad valves had to be replaced, Oxy requested that USA compression send a mechanic to be on Oxy's full day in the Corral area, to assist Oxy field personnel, while numerous compressors were malfunctioning in a short period of time, which was triggering brief intermittent instances of flaring. Oxy productions techs and the USA Compression mechanic responded to each compression malfunction alarm and quickly took steps to get the units back up and running at optimized efficiency. 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 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, there were multiple gas compression equipment issues at several facilities within the Corral area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Corral 2 South compressor station, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs

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# 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. Oxy continually strives to maintain and operate all of its facility locations 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 continue with its compression equipment preventative maintenance program for all its facilities and continually work with its compression rental owners during periods of extreme weather temperature conditions affecting facility equipment to resolve those issues in a timely manner, should they occur suddenly and without warning.

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 134374

### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	134374
	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 134374

a	UESTIONS	
Operator:		OGRID:
OXY USA INC		16696
P.O. Box 4294 Houston, TX 772104294		Action Number: 134374
		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	h the rest of the questions.
Incident Well	Not answered.	
Incident Facility	[fAPP2126640958] CORRA	L #2 SOUTH COMP STATION
Determination of Reporting Requirements		
Answer all questions that apply. The Reason(s) statements are calculated based on your answers a		
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 v	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 <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	Emergency Flare > Compre > Various Causes	ession Equipment Malfunctions > Corral Area > Several Facilities
Denvescentative Compositional Analysis of Ventad as Flored Natural Co-		
Representative Compositional Analysis of Vented or Flared Natural Gas		
Please provide the mole percent for the percentage questions in this group.  Methane (CH4) percentage	70	
	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 specification.	cifications for each gas.	
Methane (CH4) percentage quality requirement	Not answered.	
Nitrogen (N2) percentage quality requirement	Not answered.	

Not answered.

Not answered.

Not answered.

Hydrogen Sufide (H2S) PPM quality requirement

Oxygen (02) percentage quality requirement

Carbon Dioxide (C02) percentage quality requirement

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District IV

1220 S. St Francis Dr., Santa Fe, NM 87505

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS, Page 2

Action 134374

Phone:(505) 476-3470 Fax:(505) 476-3462	ONG (continued)
Operator:	ONS (continued) OGRID:
OXY USA INC P.O. Box 4294	16696 Action Number:
Houston, TX 772104294	134374
	Action Type: [C-129] Venting and/or Flaring (C-129)
QUESTIONS	
Date(s) and Time(s)	
Date vent or flare was discovered or commenced	07/27/2022
Time vent or flare was discovered or commenced	03:40 PM
Time vent or flare was terminated  Cumulative hours during this event	04:40 PM
Culturative flours during this event	
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: 204 Mcf   Recovered: 0 Mcf   Lost: 204 Mcf
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify  Is this a gas only submission (i.e. only significant Mcf values reported)	Not answered.  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  Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.  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, there were multiple gas compression equipment issues at several facilities within the Corral area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Corral 2 South compressor station, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment. In the first instance, in which a compressor mechanic was needed, due to bad valves had to be replaced, Oxy requested that USA compression send a mechanic to be on Oxy's full day in the Corral area, to assist Oxy field personnel, while numerous compressors were malfunctioning in a short period of time, which was triggering brief intermittent instances of flaring. Oxy productions techs and the USA Compression mechanic responded to each compression malfunction alarm and quickly took steps to get the units back up and running at optimized efficiency. 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 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, there were multiple gas compression equipment issues at several facilities within the Corral area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Corral 2 South compressor station, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel.
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ACKNOWLEDGMENTS

Action 134374

# **ACKNOWLEDGMENTS**

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P.O. Box 4294	Action Number:
Houston, TX 772104294	134374
	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 134374

# **CONDITIONS**

Operator:	OGRID:
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P.O. Box 4294	Action Number:
Houston, TX 772104294	134374
	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.	8/15/2022