



## 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 COMP STA FUEL INLET  
**Station Number :** NA  
**Sample Date:** 5/6/22 12:20 PM  
**Analysis Date:** 5/9/22 1:00 PM  
**Instrument:** INFICON  
**Calibration/Verification Date:** 5/9/2022  
**Heat Trace used:** YES

**Work Order:** 4000595140  
**Sampled by:** OXY/JE  
**Sample Type :** SPOT-CYLINDER  
**Sample Temperature (F):** NA  
**Sample Pressure (PSIG):** 65  
**Flow rate (MCF/Day):** NA  
**Ambient Temperature (F):** 92  
**Sampling method:** FILL & EMPTY  
**Cylinder Number:** 27765

## 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	1.3966	1.4225			
Methane	73.8165	75.1904			
Carbon Dioxide	0.2787	0.2839			
Ethane	11.7436	11.9622	3.194	3.212	3.276
Propane	5.8394	5.9481	1.636	1.645	1.678
Isobutane	0.7746	0.7890	0.258	0.259	0.264
N-butane	1.9443	1.9804	0.623	0.627	0.639
Isopentane	0.4841	0.4931	0.180	0.181	0.185
N-Pentane	0.5569	0.5672	0.205	0.206	0.211
Hexanes(C6's)	0.3958	0.4031	0.166	0.166	0.170
Heptanes (C7's)	0.4035	0.4110	0.189	0.190	0.194
Octanes (C8's)	0.3339	0.3401	0.174	0.175	0.178
Nonanes Plus (C9+)	0.2052	0.2090	0.117	0.118	0.120
<b>Total</b>	<b>98.1730</b>	<b>100.0000</b>			

## Physical Properties (Calculated)

	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.742	6.780	6.916
Total GPM Iso-Pentane+	1.031	1.037	1.059
Compressibility (Z)	0.9958	0.9957	0.9956
Specific Gravity ( Air=1) @ 60 °F	0.7832	0.7832	0.7833
Molecular Weight	22.596	22.596	22.596

## Gross Heating Value

	14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft <sup>3</sup> )	1332.6	1340.0	1367.0
Wet, Real (BTU/Ft <sup>3</sup> )	1309.3	1316.6	1343.1
Dry, Ideal (BTU/Ft <sup>3</sup> )	1327.0	1334.2	1361.0
Wet, Ideal (BTU/Ft <sup>3</sup> )	1303.8	1310.9	1337.2

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:** Cedar Canyon 28-4 CTB**Flare Date:** 12/07/2023**Duration of Event:** 7 Hours 24 Minutes**MCF Flared:** 387**Start Time:** 10:15 AM**End Time:** 05:39 PM**Cause:** Emergency Flare > Third Party > USA Compression > Salt Flat CS > Compression Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter

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

This emissions event was caused by the unforeseen, unexpected, sudden, and 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 preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, the compression equipment at Oxy's Salt Flats compression station, had several gas compressors shut down on their end, which caused them to instigate sudden and unexpected high field pressure, which in turn, prompted Oxy's Cedar Canyon 28-4 CTB to pressure up automatically and trigger intermittent flaring events to occur, within a 24-hour period. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel. Though sudden and unexpected malfunctioning compressor issues occurred at the Salt Flat compressor station, OXY routed the overflow of stranded gas to flare at the Cedar Canyon 28-4 CTB to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and as a safety measure effort to protect equipment, environment, and personnel.

**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, the compression equipment at Oxy's Salt Flats compression station, had several gas compressors shut down on their end, which caused them to instigate sudden and unexpected high field pressure, which in turn, prompted Oxy's Cedar Canyon 28-4 CTB to pressure up automatically and trigger intermittent flaring events to occur, within a 24-hour period. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel. As soon as flaring occurred, the facility's well optimizer adjusted injection rates and shut-in wells to mitigate and subsequently cease flaring during each occurrence. Though sudden and unexpected malfunctioning compressor issues occurred at the Salt Flat compressor station, OXY routed the overflow of stranded gas to flare at the Cedar Canyon 28-4 CTB to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and as a safety measure effort to protect equipment, environment, and personnel.

**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 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 to resolve those issues in a timely manner, should they continue to occur suddenly and without warning.

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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 302404

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 302404
	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: <ul style="list-style-type: none"><li>• this application's operator, hereinafter "this operator";</li><li>• venting and/or flaring, hereinafter "vent or flare";</li><li>• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";</li><li>• the statements in (and/or attached to) this, hereinafter "the statements in this";</li><li>• and the past tense will be used in lieu of mixed past/present tense questions and statements.</li></ul>
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QUESTIONS  
  
Action 302404

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	302404
	Action Type:	[C-129] Venting and/or Flaring (C-129)

QUESTIONS

<b>Prerequisites</b> 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

<b>Determination of Reporting Requirements</b> 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	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

<b>Equipment Involved</b>	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Third Party > USA Compression > Salt Flat CS > Compression Equipment Issues

<b>Representative Compositional Analysis of Vented or Flared Natural Gas</b> 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 (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 302404

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 302404
	Action Type: [C-129] Venting and/or Flaring (C-129)

**QUESTIONS**

<b>Date(s) and Time(s)</b>	
Date vent or flare was discovered or commenced	12/07/2023
Time vent or flare was discovered or commenced	10:15 AM
Time vent or flare was terminated	05:39 PM
Cumulative hours during this event	7

<b>Measured or Estimated Volume of Vented or Flared Natural Gas</b>	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Flared   Released: 387 Mcf   Recovered: 0 Mcf   Lost: 387 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.

<b>Venting or Flaring Resulting from Downstream Activity</b>	
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.

<b>Steps and Actions to Prevent Waste</b>	
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 emissions event was caused by the unforeseen, unexpected, sudden, and 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 preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, the compression equipment at Oxy's Salt Flats compression station, had several gas compressors shut down on their end, which caused them to instigate sudden and unexpected high field pressure, which in turn, prompted Oxy's Cedar Canyon 28- 4 CTB to pressure up automatically and trigger intermittent flaring events to occur, within a 24-hour period. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel. Though sudden and unexpected malfunctioning compressor issues occurred at the Salt Flat compressor station, OXY routed the overflow of stranded gas to flare at the Cedar Canyon 28-4 CTB to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and as a safety measure effort to protect equipment, environment, and personnel.
	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

Steps taken to limit the duration and magnitude of vent or flare	emissions as much as possible. In this case, the compression equipment at Oxy's Salt Flats compression station, had several gas compressors shut down on their end, which caused them to instigate sudden and unexpected high field pressure, which in turn, prompted Oxy's Cedar Canyon 28-4 CTB to pressure up automatically and trigger intermittent flaring events to occur, within a 24-hour period. This event could not have been foreseen, avoided, or prevented from happening as this event occurred with no advance notice or warning to Oxy and its field personnel. As soon as flaring occurred, the facility's well optimizer adjusted injection rates and shut-in wells to mitigate and subsequently cease flaring during each occurrence. Though sudden and unexpected malfunctioning compressor issues occurred at the Salt Flat compressor station, OXY routed the overflow of stranded gas to flare at the Cedar Canyon 28-4 CTB to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and as a safety measure effort to protect equipment, environment, and personnel.
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ACKNOWLEDGMENTS

Action 302404

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	Action Number: 302404
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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	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 <b>complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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 302404

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	Action Number: 302404
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CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	1/10/2024