


AKM MEASUREMENT SERVICES,LLC. Natural Gas Analysis Report
 GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	RED TANK 19 TRAIN 2 CHECK
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-22-2024
Meter Number	15622I
Air temperature	77
Flow Rate (MCF/Day)	23212.6
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	RED TANK 19 TRAIN 2 CHECK
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM, OXY USA INC
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	RED TANK
FLOC	OP-L2151-BT001
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	38986
Sampled by	ERIC CARTER
Sample date	3-21-2024
Analyzed date	3-26-2024
Method Name	C9
Injection Date	2024-03-26 18:59:57
Report Date	2024-03-26 19:00:44
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	5113d902-e4cb-40af-be68-3066ebcdb576
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	27138.1	1.5578	0.00005740	1.5552	0.0	0.01504	0.172
Methane	1001446.4	72.8032	0.00007270	72.6807	735.8	0.40258	12.370
CO2	8705.2	0.4137	0.00004752	0.4130	0.0	0.00628	0.071
Ethane	292939.6	13.4886	0.00004605	13.4659	238.9	0.13980	3.615
H2S	0.0	0.0004	0.00000000	0.0004	0.0	0.00000	0.000
Propane	222386.7	7.2517	0.00003261	7.2395	182.6	0.11022	2.002
iso-butane	83635.1	0.9257	0.00001107	0.9242	30.1	0.01855	0.304
n-Butane	212889.2	2.3431	0.00001101	2.3392	76.5	0.04694	0.740
iso-pentane	45552.0	0.4453	0.00000978	0.4445	17.8	0.01107	0.163
n-Pentane	49875.4	0.4676	0.00000938	0.4668	18.8	0.01163	0.170
hexanes	29574.0	0.2886	0.00000976	0.2882	13.7	0.00858	0.119
heptanes	24852.0	0.1465	0.00000590	0.1463	8.1	0.00506	0.068
octanes	6960.0	0.0354	0.00000509	0.0354	2.2	0.00140	0.018
nonanes+	286.0	0.0007	0.00000233	0.0007	0.0	0.00003	0.000
Total:		100.1684		100.0000	1324.5	0.77718	19.812

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	100.1684	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Flowing Temperature (Deg. F)	87.3	

Result	Dry	Sat.	
Flowing Pressure (psia)	145.8		
Gross Heating Value (BTU / Ideal cu.ft.)	1324.5	1301.4	
Gross Heating Value (BTU / Real cu.ft.)	1330.0	1307.4	
Relative Density (G), Real	0.7801	0.7777	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	100.1684	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Red Tank 19 CTB**Flare Date:** 01/19/2025**Duration of Event:** 2 Hours 49 Minutes**MCF Flared:** 70**Start Time:** 05:11 AM**End Time:** 08:00 AM**Cause:** Emergency Flare > Extreme Freezing Conditions and Temperatures > Multiple Compression Equipment Issues**Method of Flared Gas Measurement:** Gas Flare Meter

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, extreme freezing weather conditions and temperatures affected the facility compression equipment at the Red Tank 19 CGL, which in turn, triggered a flaring event to occur at the Red Tank 19 CTB. The Red Tank 19 CGL and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather and temperatures, by having its 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. Gas compressor engines are designed to operate in a precise manner and when any type of malfunction occurs, especially when brought upon by extreme weather conditions, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the units. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally at the Red Tank 19 CGL prior to the sudden and without warning malfunctions due to extreme freezing weather conditions and temperatures, affecting the compression equipment. This flaring event is 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.

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, extreme freezing weather conditions and temperatures affected the facility compression equipment at the Red Tank 19 CGL, which in turn, triggered a flaring event to occur at the Red Tank 19 CTB. The Red Tank 19 CGL and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather and temperatures, by having its 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. Gas compressor engines are designed to operate in a precise manner and when any type of malfunction occurs, especially when brought upon by extreme weather conditions, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the units. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally at the Red Tank 19 CGL prior to the sudden and without warning malfunctions

due to extreme freezing weather conditions and temperatures, affecting the compression equipment. As soon as flaring occurred at the Red Tank 19 CTB, the facility's well optimizer adjusted injection rates and field personnel manually shut-in wells to mitigate and subsequently cease flaring. While flaring is not our preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and safety of our operations. 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 limited in the corrective actions available to them to eliminate the cause and potential reoccurrence of compressor malfunctions as 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, thereby, triggering the unit's sensors to automatically shut down the unit to avoid catastrophic damage to the internal engine components. Oxy continually strives to maintain and operate all its equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

DEFINITIONS

Action 427849

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 427849
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

<p>For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:</p> <ul style="list-style-type: none">• 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 427849

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 427849
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites <i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	Unavailable.
Incident Facility	[fAPP2127031815] RED TANK 19 CTB

Determination of Reporting Requirements <i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
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.
<i>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.</i>	
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 within 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 and Temperatures > Multiple Compression Equipment Issues

Representative Compositional Analysis of Vented or Flared Natural Gas <i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	73
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	4
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 427849

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/19/2025
Time vent or flare was discovered or commenced	05:11 AM
Time vent or flare was terminated	08:00 AM
Cumulative hours during this event	3

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: 70 Mcf Recovered: 0 Mcf Lost: 70 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	<p>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, extreme freezing weather conditions and temperatures affected the facility compression equipment at the Red Tank 19 CGL, which in turn, triggered a flaring event to occur at the Red Tank 19 CTB. The Red Tank 19 CGL and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather and temperatures, by having its 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. Gas compressor engines are designed to operate in a precise manner and when any type of malfunction occurs, especially when brought upon by extreme weather conditions, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the units. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally at the Red Tank 19 CGL prior to the sudden and without warning malfunctions due to extreme freezing weather conditions and temperatures, affecting the compression equipment. This flaring event is out of OXY's control to prevent from happening yet OXY made every effort to control and minimize</p>

	emissions as much as possible during this event by working safely and diligently.
Steps taken to limit the duration and magnitude of vent or flare	<p>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, extreme freezing weather conditions and temperatures affected the facility compression equipment at the Red Tank 19 CGL, which in turn, triggered a flaring event to occur at the Red Tank 19 CTB. The Red Tank 19 CGL and its equipment were winterized as part of Oxy's usual operations practices for extreme cold weather and temperatures, by having its 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. Gas compressor engines are designed to operate in a precise manner and when any type of malfunction occurs, especially when brought upon by extreme weather conditions, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the units. Prior to the simultaneous malfunctions occurring, the compressor units were working as designed and operated normally at the Red Tank 19 CGL prior to the sudden and without warning malfunctions due to extreme freezing weather conditions and temperatures, affecting the compression equipment. As soon as flaring occurred at the Red Tank 19 CTB, the facility's well optimizer adjusted injection rates and field personnel manually shut-in wells to mitigate and subsequently cease flaring. While flaring is not our preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and safety o</p>
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ACKNOWLEDGMENTS

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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 complete 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 427849

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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.	2/3/2025