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 1 CHECK
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-09-2023
Meter Number	15621C
Air temperature	51
Flow Rate (MCF/Day)	33546.8
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	RED TANK 19 TRAIN 1 CHECK
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	EAST
FLOC	OP-L2151-BT001
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	1196
Sampled by	JONATHAN ALDRICH
Sample date	3-9-2023
Analyzed date	3-15-2023
Method Name	C9
Injection Date	2023-03-15 09:20:44
Report Date	2023-03-15 09:24:54
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	d11f8fb4-994a-4571-b497-2656e2ff6a43
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	37508.4	2.1250	0.00005665	2.1141	0.0	0.02045	0.234	
Methane	919467.2	67.2782	0.00007317	66.9318	677.6	0.37074	11.401	
CO2	85135.0	4.0159	0.00004717	3.9953	0.0	0.06071	0.685	
Ethane	247065.1	11.2804	0.00004566	11.2224	199.1	0.11651	3.016	
H2S	0.0	0.0009	0.00000000	0.0009	0.0	0.00001	0.000	
Propane	235085.4	7.6721	0.00003264	7.6327	192.5	0.11621	2.113	
iso-butane	117681.2	1.3121	0.00001115	1.3053	42.5	0.02619	0.429	
n-Butane	335053.4	3.6979	0.00001104	3.6789	120.3	0.07383	1.165	
iso-pentane	100910.5	0.9787	0.00000970	0.9737	39.0	0.02426	0.358	
n-Pentane	114119.8	1.0795	0.00000946	1.0740	43.2	0.02675	0.391	
hexanes	76834.0	0.5816	0.00000757	0.5786	27.6	0.01722	0.239	
heptanes	65218.0	0.4030	0.00000618	0.4010	22.1	0.01387	0.186	
octanes	16408.0	0.0891	0.00000543	0.0887	5.6	0.00350	0.046	
nonanes+	587.0	0.0026	0.00000442	0.0026	0.2	0.00012	0.001	
Total:		100.5171		100.0000	1369.6	0.87036	20.264	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	100.5171		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	57.0		
Flowing Pressure (psig)	115.0		

Result	Dry	Sat.
Gross Heating Value (BTU / Ideal cu.ft.)	1369.6	1345.8
Gross Heating Value (BTU / Real cu.ft.)	1376.5	1353.1
Relative Density (G), Real	0.8744	0.8704

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	100.5171	97.0000	103.0000	Pass

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Red Tank 19 CTB

Flare Date: 11/15/2023

Duration of Event: 24 HOURS

MCF Flared: 94

Start Time: 12:00 AM

End Time: 11:59 PM

Cause: Emergency Flare > Equipment Malfunctions > VRU's 1,2 & 3

Method of Flared Gas Measurement: Gas Flare Meter

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

The emissions were 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. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, sales gas had to be flared rather than be compressed when HP VRU # 3 suddenly and unexpectedly shut down on an e-thermal VFD fault alarm, and then HP VRU #2 also malfunctioned due to an excess of auto starts, and VRU #1 malfunctioned on a hi oil differential pressure alarm. A minimal of gas from the facility's VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU's could be restarted and returned to normal maximized operation. This event is out of OXY's control. 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 all 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, sales gas had to be flared rather than be compressed when HP VRU # 3 suddenly and unexpectedly shut down on an e-thermal VFD fault alarm, and then HP VRU #2 also malfunctioned due to an excess of auto starts, and VRU #1 malfunctioned on a hi oil differential pressure alarm, which all occurred within a 24-hour period. A minimal of gas from the facility's VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU's could be restarted and returned to normal maximized operation. Oxy production techs arrived at the facility in a timely manner, during each malfunction alarm and proceeded to inspect the VRU's, then attempted to clear the malfunctions and restart the VRU's. After several attempts to restart the VRU's with no success, Oxy production techs called HYBON, a third-party vendor specializing in VRU equipment, to dispatch a mechanic to resolve the VRU's malfunctions. HYBON mechanics were unable to respond in a timely manner due to an already heavy workload in the area and were unable to arrive until hours later, after each request for service. Once the HYBON mechanics arrived on-site to resolve the VRU's issues, the equipment was restarted and flaring ceased shortly after.

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

Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a malfunctioning VRU, as notwithstanding proper VRU, design and operation, whether low- or high-pressure, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. OXY makes every effort to control and minimize emissions as much as possible during these circumstances. The limited actions that Oxy can do in this circumstance is to immediately call for a VRU mechanic, submit a work order for repair, and/or work with its equipment maintenance team to have the issue resolved in a timely manner and continue monitoring the equipment until its repair and restoration to normal operations is complete.

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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: 312072
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 312072

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 312072
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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 ID (n#)	*Unavailable.*
Incident Name	*Unavailable.*
Incident Type	**Flare**
Incident Status	*Unavailable.*
Incident Facility	**[fAPP2127031815] RED TANK 19 CTB**
Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.	

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	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 > Equipment Malfunctions > VRU's 1,2 & 3

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	67
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	9
Carbon Dioxide (C02) percentage, if greater than one percent	4
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (02) percentage quality requirement	0

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 312072
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	11/15/2023
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	24

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: 94 MCF | Recovered: 0 MCF | Lost: 94 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	No
Downstream OGRID that should have notified this operator	0
Date notified of downstream activity requiring this vent or flare	
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	The emissions were 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. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, sales gas had to be flared rather than be compressed when HP VRU # 3 suddenly and unexpectedly shut down on an e-thermal VFD fault alarm, and then HP VRU #2 also malfunctioned due to an excess of auto starts, and VRU #1 malfunctioned on a hi oil differential pressure alarm. A minimal of gas from the facility’s VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU’s could be restarted and returned to normal maximized operation. This event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible.
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Steps taken to limit the duration and magnitude of vent or flare	VRU #1 malfunctioned on a hi oil differential pressure alarm, which all occurred within a 24-hour period. A minimal of gas from the facility's VRT was sent to the flare out of necessity to protect personnel and equipment as a safeguard until the VRU's could be restarted and returned to normal maximized operation. Oxy production techs arrived at the facility in a timely manner, during each malfunction alarm and proceeded to inspect the VRU's, then attempted to clear the malfunctions and restart the VRU's. After several attempts to restart the VRU's with no success, Oxy production techs called HYBON, a thirdparty vendor specializing in VRU equipment, to dispatch a mechanic to resolve the VRU's malfunctions. HYBON mechanics were unable to respond in a timely manner due to an already heavy workload in the area and were unable to arrive until hours later, after each request for service. Once the HYBON mechanics arrived on-site to resolve the VRU's issues, the equipment was restarted and flaring ceased shortly after.
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ACKNOWLEDGMENTS

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	Action Number: 312072
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

ACKNOWLEDGMENTS

☑	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
☑	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
☑	I hereby certify the statements in this amending 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 312072

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 312072
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	2/6/2024