



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 (psia)	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:** 12/19/2023**Duration of Event:** 3 Hours 49 Minutes**MCF Flared:** 388**Start Time:** 02:04 PM**End Time:** 05:53 PM**Cause:** Emergency LP Flare > Compression Equipment Malfunctions > Red Tank 19 CGL > Gas Lift Compressor Units**Method of Flared Gas Measurement:** Gas Flare Meter

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, the Red Tank 19 CGL compressor station, lost five (5) gas compressor units due to various sudden and unexpected malfunction alarms, prompted by coolant leak repairs, blown fuses, bad valves and engine overspeed, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event is out of OXY's control, yet 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, the Red Tank 19 CGL compressor station, lost five (5) gas compressor units due to various sudden and unexpected malfunction alarms, prompted by coolant leak repairs, blown fuses, bad valves and engine overspeed, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event 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 detonation occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Compressor malfunctions can occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. As soon as the Oxy production tech, who was on-site, saw flaring occur, he began to make phone calls to other field production techs to start shutting in wells while trying to bring compressors back online. NGSG mechanics were on site, who assessed the situation and attempted to bring back online the malfunctioning compressors. The Oxy production tech then contacted Oxy's personnel to begin making injection rate changes, so that field pressure would stay below the flare trigger setpoints of the CTB to cease flaring. 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 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 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 318534

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 318534
	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 318534

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 318534
	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 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

Equipment Involved	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency LP Flare > Compression Equipment Malfunctions > Red Tank 19 CGL > Gas Lift Compressor Units

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 (CO2) percentage, if greater than one percent	4
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (CO2) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0

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QUESTIONS, Page 2

Action 318534

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	318534
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	12/19/2023
Time vent or flare was discovered or commenced	02:04 PM
Time vent or flare was terminated	05:53 PM
Cumulative hours during this event	4

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: 388 MCF Recovered: 0 MCF Lost: 388 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, the Red Tank 19 CGL compressor station, lost five (5) gas compressor units due to various sudden and unexpected malfunction alarms, prompted by coolant leak repairs, blown fuses, bad valves and engine overspeed, which in turn, prompted Oxy's Red Tank 19 CTB to pressure up automatically and trigger a flaring event to occur. This event is out of OXY's control, yet 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	occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Compressor malfunctions can occur without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. As soon as the Oxy production tech, who was on-site, saw flaring occur, he began to make phone calls to other field production techs to start shutting in wells while trying to bring compressors back online. NGSG mechanics were on site, who assessed the situation and attempted to bring back online the malfunctioning compressors. The Oxy production tech then contacted Oxy's personnel to begin making injection rate changes, so that field pressure would stay below the flare trigger setpoints of the CTB to cease flaring. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
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ACKNOWLEDGMENTS

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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

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	Action Number: 318534
	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.	2/28/2024