# 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	СТВ
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	
Released in Preseirs (p3/4)2/2024 9:28:44	<i>PM</i> 115.0	

Received by OCD: 2412(1024 9:21:56 PM	Dry	Sat.	I	Page 2 of
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: 01/28/2024

**Duration of Event:** 2 Hours 21 Minutes MCF Flared: 177

Start Time: 10:25 AM End Time: 12:46 PM

Cause: Emergency Flare > Third Party Downstream Activity > MPLX > Emergency Shutdown > False O2

Method of Flared Gas Measurement: Gas Flare Meter

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

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or partial shut-down of a third-party downstream operator and their equipment is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent this type of event from happening. This event did not stem from any of Oxy's upstream facility activity which could have been foreseen or avoided and could not have been negated by good design, operation or preventative maintenance practices. In this case, MPLX's slam valve shut and closed on false CO2 detection, several times within a 24-hr period, which then instigated a sudden and unexpected restriction of gas flow intake by Red Tank 26 Boo compressor station, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging several intermittent flaring instances to occur. 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 from MPLX or USA Compression personnel. Red Tank 26 Boo compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.

### 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, MPLX's slam valve shut and closed on false CO2 detection, several times within a 24-hr period, which then instigated a sudden and unexpected restriction of gas flow intake by Red Tank 26 Boo compressor station, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging several intermittent flaring instances to occur. When MPLX slam valve closed each time, this caused the Red Tank 26 Boo compressor station's recycle valve to open up, which then caused sudden and unexpected restriction of gas flow offloads, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging intermittent flaring instances to occur. Steps were immediately taken by the OXY Operator to reduce and mitigate the volume of gas being sent to flare by reducing production to the Red Tank 19 CTB by choking back high GOR wells, and/or going to storage mode on a few wells. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible. 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 from MPLX or USA Compression

personnel. Red Tank 26 BOO compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.

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

Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators and midstream operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank Boo 26 compressor station, when possible, during these types of circumstances.

District I
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District II

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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 313698

#### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	313698
	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 313698

Phone:(505) 476-3470 Fax:(505) 476-3462			
Q	UESTIONS		
Operator:		OGRID:	
OXY USA INC P.O. Box 4294		16696 Action Number:	
Houston, TX 772104294		313698	
		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 w	th the rest of the questions.	
Incident Well	Unavailable.		
Incident Facility	[fAPP2127031815] RED TA	ANK 19 CTB	
Determination of Reporting Requirements			
Answer all questions that apply. The Reason(s) statements are calculated based on your answers a	and may provide addional quidance		
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 ma	v be a maior 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	No		
watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water			
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		
existence			
Equipment Involved			
Primary Equipment Involved	Other (Specify)		
,, -1	Carior (Opeony)		
Additional details for Equipment Involved. Please specify		arty Downstream Activity > MPLX > Emergency Shutdown > False	
	02		
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		
	I		
If you are venting and/or flaring because of Pipeline Specification, please provide the required specification. Methane (CH4) percentage quality requirement	Not answered.		
Nitrogen (N2) percentage quality requirement	Not answered.		
Hydrogen Sufide (H2S) PPM quality requirement	Not answered.		
Carbon Dioxide (CO2) percentage quality requirement	Not answered		

Not answered.

Oxygen (02) percentage quality requirement

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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, Page 2

Action 313698

QUESTIONS	(continued)
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Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	313698
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

#### QUESTIONS

Date(s) and Time(s)		
Date vent or flare was discovered or commenced	01/28/2024	
Time vent or flare was discovered or commenced	10:25 AM	
Time vent or flare was terminated	12:46 PM	
Cumulative hours during this event	2	

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: 177 Mcf   Recovered: 0 Mcf   Lost: 177 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	Yes	
Was notification of downstream activity received by this operator	No	
Downstream OGRID that should have notified this operator	[258315] MARKWEST ENERGY OPERATING CO LLC	
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	The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or partial shut-down of a third-party downstream operator and their equipment is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent this type of event from happening. This event did not stem from any of Oxy's upstream facility activity which could have been foreseen or avoided and could not have been negated by good design, operation or preventative maintenance practices. In this case, MPLX's slam valve shut and closed on false CO2 detection, several times within a 24-hr period, which then instigated a sudden and unexpected restriction of gas flow intake by Red Tank 26 Boo compressor station, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging several intermittent flaring instances to occur. 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 from MPLX or USA Compression personnel. Red Tank 26 Boo compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.		
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Steps taken to limit the duration and magnitude of vent or flare	emissions as much as possible. In this case, MPLX's slam valve shut and closed on false CO2 detection, several times within a 24-hr period, which then instigated a sudden and unexpected restriction of gas flow intake by Red Tank 26 Boo compressor station, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging several intermittent flaring instances to occur. When MPLX slam valve closed each time, this caused the Red Tank 26 Boo compressor station's recycle valve to open up, which then caused sudden and unexpected restriction of gas flow offloads, which in turn, prompted Oxy's Red Tank 19 CTB to instantaneously over pressure, trigging intermittent flaring instances to occur. Steps were immediately taken by the OXY Operator to reduce and mitigate the volume of gas being sent to flare by reducing production to the Red Tank 19 CTB by choking back high GOR wells, and/or going to storage mode on a few wells. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible. 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 from MPLX or USA Compression personnel. Red Tank 26 BOO compressor station is the first stopping point, where OXY sends its sales gas from its facility, before it is pushed further down the pipeline for further processing at Mark West, a downstream gathering system facility, which is downstream of Oxy's control.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of a third-party owned and operated compressor station's sudden and unexpected gas flow intake restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. Third-party downstream compression station owner operators and midstream operators may have equipment issues, which will reoccur from time to time, which in turn, directly impacts Oxy's ability to send its sales gas to them, and potentially triggering a flaring event. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to continually communicate with USA Compression personnel, who operate the Red Tank Boo 26 compressor station, when possible, during these types of circumstances.

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ACKNOWLEDGMENTS

Action 313698

#### **ACKNOWLEDGMENTS**

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OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	313698
	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 313698

### **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	313698
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

#### CONDITIONS

Created By		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.	2/12/2024