# 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	LOST TANK 18 FACILITY HP VRU 3
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	12-15-2023
Meter Number	16427V
Air temperature	57
Flow Rate (MCF/Day)	492
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	LOST TANK 18 FACILITY HP VRU 3
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM, OXY USA INC
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	LOST TANK
FLOC	OP-DELNE-BT010
Sample Sub Type	СТВ
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	38947
Sampled by	SCOTT
Sample date	12-12-2023
Analyzed date	12-19-2023
Method Name	C9
Injection Date	2023-12-19 16:54:11
Report Date	2023-12-19 16:55:47
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	53d6f6b5-4467-4841-89c9-4fae48334cc6
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	4568.9	0.2600	0.00005691	0.2564	0.0	0.00248	0.028	
Methane	456273.6	33.2457	0.00007286	32.7797	331.8	0.18157	5.613	
CO2	30720.0	1.4627	0.00004761	1.4422	0.0	0.02191	0.249	
Ethane	576932.1	26.5931	0.00004609	26.2203	465.1	0.27222	7.082	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	760744.0	24.9277	0.00003277	24.5783	619.8	0.37420	6.839	
iso-butane	300846.6	3.3273	0.00001106	3.2807	106.9	0.06584	1.084	
n-Butane	758257.0	8.3375	0.00001100	8.2207	268.8	0.16497	2.618	
iso-pentane	132666.7	1.2963	0.00000977	1.2781	51.3	0.03184	0.472	
n-Pentane	135071.5	1.2676	0.00000938	1.2499	50.2	0.03114	0.458	
hexanes	50692.0	0.4997	0.00000986	0.4927	23.5	0.01466	0.205	
heptanes	27428.0	0.1657	0.00000604	0.1633	9.0	0.00565	0.076	
octanes	6748.0	0.0362	0.00000537	0.0357	2.2	0.00141	0.018	
nonanes+	614.0	0.0020	0.00000326	0.0020	0.1	0.00009	0.001	
Total:		101.4216		100.0000	1928.9	1.16798	24.743	

# **Results Summary**

Result	Dry	Sat.
Total Un-Normalized Mole%	101.4216	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Released to Tampeintyre 10/20172024 9:09:3	<i>5 PM</i> 114.3	

Received by OCD: 10/21/2024 9:00:37 PM	Dry	Sat.	Page 2	2 01
Flowing Pressure (psia)	102.1			
Gross Heating Value (BTU / Ideal cu.ft.)	1928.9	1895.3		
Gross Heating Value (BTU / Real cu.ft.)	1948.6	1915.7		
Relative Density (G), Real	1.1794	1.1705		

# **Monitored Parameter Report**

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	101.4216	97.0000	103.0000	Pass	

#### **UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**

Facility: Lost Tank 18 CPF Flare Date: 10/06/2024

**Duration of Event:** 2 Hours 27 Minutes **MCF Flared:** 526

Start Time: 06:00 AM End Time: 08:27 AM

**Cause:** Emergency Flare > Facility Over-pressure > Overload of Compression Equipment

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, there were several instances of sudden and unexpected overload and/or maximum capacity of the compression equipment, which occurred within a 24-hour period, which in turn, then prompted high field pressure to occur several times, which then triggered various intermittent flaring instances to occur. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible. This flaring event's duration and volume result from several intermittent flares over 24 hours. Although this event was beyond OXY's control, Oxy field personnel endeavored to manage and reduce emissions to the greatest extent feasible.

### 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, there were several instances of sudden and unexpected overload and/or maximum capacity of the compression equipment, which occurred within a 24-hour period, which in turn, then prompted high field pressure to occur several times, which then triggered various intermittent flaring instances to occur. When gas compressors hit their maximum intake capacity, they become overloaded, causing a backup in gas production. Field personnel promptly acted to reduce the gas flow to the flare by choking back several high GOR wells whenever flaring began, keeping field pressure below the flare trigger setpoints to stop flaring. To mitigate the risks associated with facility overpressure and to ensure the safety of our operations and personnel, Oxy had to resort to controlled and safety flaring. This process allows us to safely burn off the excess or backed up gas, thereby preventing potential hazards such as equipment damage, leaks, or even explosions. While flaring is not Oxy's preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and safety of our operations. Although this event was beyond OXY's control, Oxy field personnel endeavored to manage and reduce emissions to the greatest extent feasible.

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

Oxy has limited options for corrective actions to eliminate the cause and prevent the possible recurrence of facility overpressure due to peak production capacity. Oxy field staff consistently monitor to maintain normal production levels, although occasionally, production intake capacity can unexpectedly increase. Oxy consistently endeavors to manage and run all its equipment in accordance with best practices to prevent any type of emissions

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

DEFINITIONS

Action 394360

#### **DEFINITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	394360
	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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1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 <u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505

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

QUESTIONS

Action 394360

Phone:(505) 476-3470 Fax:(505) 476-3462			
0	UESTIONS		
Operator: OXY USA INC	<u> </u>	OGRID: 16696	
P.O. Box 4294		Action Number:	
Houston, TX 772104294		394360	
		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 wi	th the rest of the questions.	
Incident Well	Unavailable.		
Incident Facility	[fAPP2226965761] Lost T	ank 18 CPF	
Determination of Reporting Requirements			
Answer all questions that apply. The Reason(s) statements are calculated based on your answers a  Was this vent or flare caused by an emergency or malfunction	Yes	3.	
Did this vent or flare last eight hours or more cumulatively within any 24-hour	No		
period from a single event  Is this considered a submission for a vent or flare event		flaring of natural gas	
	Yes, major venting and/or		
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during v	1	y 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 <b>ANY</b> 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 > Facility	v Over-pressure > Overload of Compression Equipment	
Representative Compositional Analysis of Vented or Flared Natural Gas			
Please provide the mole percent for the percentage questions in this group.			
Methane (CH4) percentage	33		
Nitrogen (N2) percentage, if greater than one percent	0		
Hydrogen Sulfide (H2S) PPM, rounded up			
Carbon Dioxide (C02) percentage, if greater than one percent	0		
Oxygen (02) percentage, if greater than one percent	1 0		
If you are venting and/or flaring because of Pipeline Specification, please provide the required spec	_		
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.		

Not answered.

Oxygen (02) percentage quality requirement

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Time vent or flare was discovered or commenced

Time vent or flare was terminated

Cumulative hours during this event

# **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 394360

QUESTIONS (con	tinuea)
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	QUESTIONS (continued)
Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	394360
	Action Type:
	[C-129] Venting and/or Flaring (C-129)
QUESTIONS	
Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/06/2024

06:00 AM

08:27 AM

Natural Gas Vented (Mcf) Details	Not answered.	
Natural Gas Flared (Mcf) Details	Cause: Other   Other (Specify)   Natural Gas Flared   Released: 526 Mcf   Recovered: 0 Mc Lost: 526 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.	

teps 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	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, there were several instances of sudden and unexpected overload and/or maximum capacity of the compression equipment, which occurred within a 24-hour period, which in turn, then prompted high field pressure to occur several times, which then triggered various intermittent flaring instances to occur. This event is out of OXY's control yet OXY made every effort to control and minimize emissions as much as possible. This flaring event's duration and volume result from several intermittent flares over 24 hours. Although this event was beyond OXY's control, Oxy field personnel endeavored to manage and reduce emissions to the greatest extent feasible.
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Steps taken to limit	the duration and magnitude of vent or flare	several times, which then triggered various intermittent flaring instances to occur. When gas compressors hit their maximum intake capacity, they become overloaded, causing a backup in gas production. Field personnel promptly acted to reduce the gas flow to the flare by choking back several high GOR wells whenever flaring began, keeping field pressure below the flare trigger setpoints to stop flaring. To mitigate the risks associated with facility overpressure and to ensure the safety of our operations and personnel, Oxy had to resort to controlled and safety flaring. This process allows us to safely burn off the excess or backed up gas, thereby preventing potential hazards such as equipment damage, leaks, or even explosions. While flaring is not Oxy's preferred method of handling excess gas, it is a necessary step under these exceptional circumstances to maintain the integrity and safety of our operations. Although this event was beyond OXY's control, Oxy field personnel endeavored to manage and reduce emissions to the greatest extent feasible.
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ACKNOWLEDGMENTS

Action 394360

#### **ACKNOWLEDGMENTS**

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OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	394360
	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.
~	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.
~	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.
<u>~</u>	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 394360

**CONDITIONS** 

Operator:	OGRID:
OXY USA INC	16696
	Action Number:
Houston, TX 772104294	394360
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

#### 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.	10/21/2024