AKM Measurement Services, LLC
Carlsbad, New Mexico

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	SALT FLAT CTB TRAIN 1 CK
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	06-08-2023
Meter Number	18721C
Air temperature	81
Flow Rate (MCF/Day)	11478
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	SALT FLAT CTB TRAIN 1 CK
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	NMSW
FLOC	OP-L2116-BT002
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	NA
Sampled by	JESUS ESCOBEDO
Sample date	5-30-2023
Analyzed date	6-8-2023
Method Name	C9
Injection Date	2023-06-08 19:34:49
Report Date	2023-06-08 19:37:18
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	057154a0-cfab-4c70-a134-d7b92b2f9212
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	37863.7	2.1419	0.00005657	2.1495	0.0	0.02079	0.237	
Methane	1008495.6	73.7059	0.00007309	73.9647	748.8	0.40969	12.585	
CO2	68837.1	3.2363	0.00004701	3.2476	0.0	0.04935	0.556	
Ethane	232158.7	10.6124	0.00004571	10.6496	188.9	0.11056	2.859	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	170863.3	5.5498	0.00003248	5.5692	140.5	0.08479	1.540	
iso-butane	66400.4	0.7373	0.00001110	0.7399	24.1	0.01485	0.243	
n-Butane	170674.4	1.8761	0.00001099	1.8827	61.6	0.03778	0.596	
iso-pentane	49220.9	0.4765	0.00000968	0.4782	19.2	0.01191	0.176	
n-Pentane	57740.0	0.5457	0.00000945	0.5476	22.0	0.01364	0.199	
hexanes	48810.0	0.3683	0.00000755	0.3696	17.6	0.01100	0.153	
heptanes	43033.0	0.2637	0.00000613	0.2646	14.6	0.00915	0.123	
octanes	21154.0	0.1141	0.00000539	0.1145	7.2	0.00452	0.059	
nonanes+	4458.0	0.0223	0.00000499	0.0223	1.6	0.00099	0.013	
Total:		99.6503		100.0000	1245.9	0.77902	19.337	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	99.6503		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	94.0		

Result	Dry	Sat.
Flowing Pressure (psia)	79.0	
Gross Heating Value (BTU / Ideal cu.ft.)	1245.9	1224.2
Gross Heating Value (BTU / Real cu.ft.)	1250.8	1229.6
Relative Density (G), Real	0.7817	0.7793

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	99.6503	97.0000	103.0000	Pass

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Salt Flat CTB

Flare Date: 09-27-2023

Duration of Event: 10 Hours 38 Minutes

MCF Flared: 575

Start Time: 01:12 PM

End Time: 11:50 PM

Cause: Equipment Malfunction > Salt Flat CGL > Compressor Malfunctions > Compression Equipment Shut Down

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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, 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, several gas lift compressor units at the Salt Flat CGL suddenly and unexpectedly malfunctioned due to detonation and automatically shut down simultaneously, which in turn, caused the facility to pressure up and triggered a flaring event. Notwithstanding proper gas lift 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. Gas lift compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas lift compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Detonation occurs without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. All other compression at the facility was operating as designed and were running normally prior to this event occurring.

2. Steps Taken to limit duration and magnitude of venting or flaring:

This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. 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, several gas lift compressor units at the Salt Flat CGL suddenly and unexpectedly malfunctioned due to detonation and automatically shut down simultaneously, which in turn, caused the facility

to pressure up and triggered a flaring event. Notwithstanding proper gas lift 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. Gas lift compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas lift compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Oxy production techs responded to the facility alarms received, as quickly and safely as possible and upon arrival to the facility, quickly inspected the gas lift compression equipment. Oxy production techs were able to clear the gas compression equipment alarm panel and restart the units. This incident was completely 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.

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 lift 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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District IV
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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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 275289
	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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QUESTIONS

Action 275289

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 275289
	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 with the rest of the questions.	
Incident Well	*Unavailable.*
Incident Facility	**[fAPP2126563666] SALT FLAT CTB**

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, major 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	Equipment Malfunction > Salt Flat CGL > Compressor Malfunctions > Compression Equipment Shut Down

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	3
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	*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.*
Oxygen (02) percentage quality requirement	*Not answered.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 275289
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	09/27/2023
Time vent or flare was discovered or commenced	01:12 PM
Time vent or flare was terminated	11:50 PM
Cumulative hours during this event	11

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: 575 Mcf | Recovered: 0 Mcf | Lost: 575 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	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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, 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, several gas lift compressor units at the Salt Flat CGL suddenly and unexpectedly malfunctioned due to detonation and automatically shut down simultaneously, which in turn, caused the facility to pressure up and triggered a flaring event. Notwithstanding proper gas lift 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. Gas lift compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas lift compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit. Detonation occurs without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. All other compression at the facility was operating as designed and were running normally prior to this event occurring.

Steps taken to limit the duration and magnitude of vent or flare	This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. 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, several gas lift compressor units at the Salt Flat CGL suddenly and unexpectedly malfunctioned due to detonation and automatically shut down simultaneously, which in turn, caused the facility to pressure up and triggered a flaring event. Notwithstanding proper gas lift 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. Gas lift compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas lift compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas lift 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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ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 275289
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ACKNOWLEDGMENTS

☑	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.
☑	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

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 275289
	Action Type: [C-129] Venting and/or Flaring (C-129)

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.	10/12/2023