



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	CYPRESS 33 CTB A CHECK 1
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	04-27-2023
Meter Number	18940C
Air temperature	67
Flow Rate (MCF/Day)	
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	CYPRESS 33 CTB A CHECK 1
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	WEST
FLOC	OP-L3818-BT001
Sample Sub Type	GAS LIFT
Sample Name Type	WELL
Vendor	AKM MEASUREMENT
Cylinder #	1951
Sampled by	LUIS JIMENEZ
Sample date	4-21-2023
Analyzed date	4-27-2023
Method Name	C9
Injection Date	2023-04-27 23:44:20
Report Date	2023-04-27 23:48:29
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	3ff6495a-c75c-4101-9c04-63a841182185
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	17397.4	0.9871	0.00005674	0.9894	0.0	0.00957	0.109
Methane	1059173.2	77.4074	0.00007308	77.5879	785.5	0.42976	13.201
CO2	4202.7	0.1970	0.00004688	0.1975	0.0	0.00300	0.034
Ethane	248621.4	11.3075	0.00004548	11.3339	201.0	0.11767	3.042
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000
Propane	166800.3	5.4260	0.00003253	5.4386	137.2	0.08280	1.504
iso-butane	71935.8	0.8012	0.00001114	0.8030	26.2	0.01611	0.264
n-Butane	168504.8	1.8576	0.00001102	1.8619	60.9	0.03736	0.589
iso-pentane	48124.8	0.4669	0.00000970	0.4680	18.8	0.01166	0.172
n-Pentane	57620.6	0.5452	0.00000946	0.5465	22.0	0.01361	0.199
hexanes	51772.0	0.3896	0.00000752	0.3905	18.6	0.01162	0.161
heptanes	38565.0	0.2360	0.00000612	0.2365	13.0	0.00818	0.110
octanes	19285.0	0.1030	0.00000534	0.1033	6.5	0.00407	0.053
nonanes+	8539.0	0.0429	0.00000503	0.0430	3.0	0.00190	0.024
Total:		99.7674		100.0000	1292.6	0.74733	19.462

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	99.7674	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Flowing Temperature (Deg. F)	81.6	
Flowing Pressure (psia)	69.3	
Gross Heating Value (BTU / Ideal cu.ft.)	1292.6	1270.1
Gross Heating Value (BTU / Actual cu.ft.)	1297.6	1275.5

Result	Dry	Sat.	
Relative Density (G), Real	0.7499	0.7480	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.7674	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Cypress 33A CTB**Flare Date:** 05/13/2023**Duration of event:** 12 Hours**MCF Flared:** 464**Start Time:** 12:00 PM**End Time:** 11:59 PM**Cause:** Emergency Flare > Planned Maintenance > Facility PLC Upgrade and Cleanout**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:** *Date of discovery for this event by Air Quality Team was May 16, 2023.*

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. Oxy production techs must assess and determine cause of flaring at its upstream facility. In this case, this was a planned maintenance event over several days in which the amount of gas flared was needed to be purge each vessel within the facility, to ensure there wasn't any oxygen in the gas system when the facility was brought back online, in stages, after being shut down for a week for PLC upgrades. Failure to purge the vessels and clean out the oxygen from the gas system would have potentially created a hazardous atmosphere in which third party take away issues could have occurred. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.

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, this was a planned maintenance event in which the amount of gas flared was needed to be purge each vessel within the facility, to ensure there wasn't any oxygen in the gas system when the facility was brought back online after being shut down for a week for PLC upgrades. Failure to purge the vessels and clean out the oxygen from the gas system would have potentially created a hazardous atmosphere in which third party take away issues could have occurred. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.

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 flaring from a planned maintenance upgrade as it is at times necessary to allow a minimal amount of gas to be flared as a necessity to protect personnel and equipment as a safeguard during these circumstances. The only action that Oxy can do during these planned maintenance upgrades is to make every effort to minimize emissions.

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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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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

Action 223053

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 223053
	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 223053

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 223053
	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	[fAPP2305250553] Cypress 33 A CTB

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	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 within 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 > Planned Maintenance > Facility PLC Upgrade and Cleanout

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	78
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
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	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

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QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/16/2023
Time vent or flare was discovered or commenced	12:00 PM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	12

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: 464 Mcf Recovered: 0 Mcf Lost: 464 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	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. Oxy production techs must assess and determine cause of flaring at its upstream facility. In this case, this was a planned maintenance event over several days in which the amount of gas flared was needed to be purge each vessel within the facility, to ensure there wasn't any oxygen in the gas system when the facility was brought back online, in stages, after being shut down for a week for PLC upgrades. Failure to purge the vessels and clean out the oxygen from the gas system would have potentially created a hazardous atmosphere in which third party take away issues could have occurred. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.
Steps taken to limit the duration and magnitude of vent or flare	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, this was a planned maintenance event in which the amount of gas flared was needed to be purge each vessel within the facility, to ensure there wasn't any oxygen in the gas system when the facility was brought back online after being shut down for a week for PLC upgrades. Failure to purge the vessels and clean out the oxygen from the gas system would have potentially created a hazardous atmosphere in which third party take away issues could have occurred. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard.
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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☒	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (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

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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.	6/1/2023