



Natural Gas Analysis Report

GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	DIMENSIONS CTB TRAIN 1 CHECK (FMP)
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	02-15-2023
Meter Number	18521C
Air temperature	35
Flow Rate (MCF/Day)	47657.8
Heat Tracing	Heated Hose & Gasifier
Sample description/mtr name	DIMENSIONS CTB TRAIN 1 CHECK (FMP)
Sampling Method	fill and empty
Operator	AKM MEASUREMENT
State	New Mexico
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	WEST
FLOC	NA
Sample Sub Type	CTB
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	5115
Sampled by	JONATHAN ALDRICH
Sample date	2-15-2023
Analyzed date	2-20-2023
Method Name	C9
Injection Date	2023-02-20 11:06:56
Report Date	2023-02-20 11:13:58
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	0d03f5dc-7762-49dd-a83f-2b80c2c014d8
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	34565.8	1.9481	0.00005636	1.9654	0.0	0.01901	0.217	
Methane	1070619.4	78.4398	0.00007327	79.1360	801.1	0.43833	13.459	
CO2	8569.6	0.4050	0.00004726	0.4086	0.0	0.00621	0.070	
Ethane	229966.2	10.4650	0.00004551	10.5579	187.3	0.10961	2.833	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	132885.1	4.3544	0.00003277	4.3931	110.8	0.06688	1.214	
iso-butane	62337.1	0.6928	0.00001111	0.6990	22.8	0.01403	0.229	
n-Butane	128957.8	1.4165	0.00001098	1.4291	46.7	0.02868	0.452	
iso-pentane	39386.4	0.3826	0.00000971	0.3860	15.5	0.00962	0.142	
n-Pentane	43294.1	0.4099	0.00000947	0.4136	16.6	0.01030	0.150	
hexanes	40004.0	0.3039	0.00000760	0.3066	14.6	0.00912	0.126	
heptanes	31463.0	0.1965	0.00000624	0.1982	10.9	0.00686	0.092	
octanes	15856.0	0.0884	0.00000558	0.0892	5.6	0.00352	0.046	
nonanes+	2772.0	0.0172	0.00000619	0.0173	1.2	0.00077	0.010	
Total:		99.1202		100.0000	1233.1	0.72294	19.041	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	99.1202		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	78.0		
Flowing Temperature (Deg. F)	30.0		

Result	Dry	Sat.	
Gross Heating Value (BTU / Ideal cu.ft.)	1233.1	1211.7	
Gross Heating Value (BTU / Real cu.ft.)	1237.5	1216.4	
Relative Density (G), Real	0.7252	0.7237	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.1202	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Dimension 6 CTB**Flare Date:** 06/19/2023**Duration of event:** 02 Hours**MCF Flared:** 480**Start Time:** 12:15 PM**End Time:** 02:15 PM**Cause:** Compression Equipment Malfunctions > Dimension Area > Several Facilities > Various Causes**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:** This event was discovered by Air Quality Team on June 21, 2023.

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

In this case, there were multiple gas compression equipment issues at several facilities within the Dimension area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Dimension 6 CTB, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment. Oxy requested that USA compression send a mechanic to be on Oxy's full day in the Dimension area, to assist Oxy field personnel, while numerous compressors were malfunctioning in a short period of time, which was triggering brief intermittent instances of flaring. Oxy productions techs and the USA Compression mechanic responded to each compression malfunction alarm and quickly took steps to get the units back up and running at optimized efficiency. 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, there were multiple gas compression equipment issues at several facilities within the Dimension area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Dimension 6 CTB, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad

valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment. Oxy requested that USA compression send a mechanic to be on Oxy's full day in the Dimension area, to assist Oxy field personnel, while numerous compressors were malfunctioning in a short period of time, which was triggering brief intermittent instances of flaring. In addition, Oxy had its flare mitigation optimizer cut 20,000 injection rates to wells throughout the field to reduce injection and sales gas. Oxy productions techs and the USA Compression mechanics, when available, responded to each area range compression malfunction alarms and quickly took steps to get the units back up and running at optimized efficiency. 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 of 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 during periods of extreme weather temperature conditions affecting facility equipment 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 288155

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 288155
	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: <ul style="list-style-type: none">• 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 288155

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 288155
	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 Operator	[16696] OXY USA INC
Incident Type	Flare
Incident Status	Closure Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2126637631] DIMENSION 6 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 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	Compression Equipment Malfunctions > Dimension Area > Several Facilities > Various Causes

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	79
Nitrogen (N2) percentage, if greater than one percent	2
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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sulfide (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 288155

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 288155
	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	06/19/2023
Time vent or flare was discovered or commenced	12:15 PM
Time vent or flare was terminated	02:15 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: 480 MCF Recovered: 0 MCF Lost: 480 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	<p>In this case, there were multiple gas compression equipment issues at several facilities within the Dimension area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Dimension 6 CTB, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment. Oxy requested that USA compression send a mechanic to be on Oxy's full day in the Dimension area, to assist Oxy field personnel, while numerous compressors were malfunctioning in a short period of time, which was triggering brief intermittent instances of flaring. Oxy productions techs and the USA Compression mechanic responded to each compression malfunction alarm and quickly took steps to get the units back up and running at optimized efficiency. OXY made every effort to control and minimize emissions as much as possible.</p> <p>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</p>

Steps taken to limit the duration and magnitude of vent or flare	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, there were multiple gas compression equipment issues at several facilities within the Dimension area, which suddenly and without warning, would trigger small intermittent instances of flaring to occur at the Dimension 6 CTB, as the flare at this location can accommodate a higher volume of gas and to protect equipment, environment, and personnel. In each instance in which a gas compressor malfunctioned due to detonation, bad valves, leaking PRV's, overheating, sensor issues, etc., and shut down, Oxy production techs received compression malfunction and flaring alarms. Oxy production techs responded to each facility alarm received as quickly and safely as possible. Oxy production techs would immediately upon arrive to the alarmed facility and troubleshoot the compressor issues before clearing alarm panels and restarting compression equipment.
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 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 of 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 during periods of extreme weather temperature conditions affecting facility equipment to resolve those issues in a timely manner, should they occur suddenly and without warning.

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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 288155

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 288155
	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.	11/26/2023