



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 production 1 (fmp) v-1010
Technician	Danny J
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	3-8-2023
Meter Number	16411p
Air temperature	71
Flow Rate (MCF/Day)	25435
Heat Tracing	Heated Hose & Gasifier
Sample description/mtr name	lost tank 18 facility production 1 (fmp) v-1010
Sampling Method	fill and empty
Operator	AKM MEASUREMENT
State	New Mexico
Region Name	Permian Resources
Asset	new mexico
System	east
FLOC	op-delne-bt010
Sample Sub Type	meter
Sample Name Type	ctb
Vendor	akm
Cylinder #	27798
Sampled by	jonathan aldrich
Sample date	3-7-2023
Analyzed date	3-8-2023
Method Name	C9
Injection Date	2023-03-08 14:09:13
Report Date	2023-03-08 14:07:12
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	80135ddf-b144-4dfd-b24e-da86f97ecc64
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	23176.5	1.5087	0.00006510	1.4924	0.0	0.01443	0.165
Methane	789907.9	71.7938	0.00009089	71.0166	718.9	0.39336	12.091
CO2	4248.3	0.2447	0.00005760	0.2420	0.0	0.00368	0.041
Ethane	253314.9	14.0709	0.00005555	13.9185	246.9	0.14450	3.738
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000
Propane	187121.2	7.6655	0.00004097	7.5825	191.2	0.11544	2.098
iso-butane	58320.5	1.0090	0.00001730	0.9981	32.5	0.02003	0.328
n-Butane	154085.2	2.6453	0.00001717	2.6166	85.6	0.05251	0.828
iso-pentane	38587.0	0.5807	0.00001505	0.5744	23.0	0.01431	0.211
n-Pentane	46221.7	0.6830	0.00001478	0.6756	27.1	0.01683	0.246
hexanes	36033.0	0.4207	0.00001168	0.4162	19.8	0.01238	0.172
heptanes	36586.0	0.3379	0.00000924	0.3342	18.4	0.01156	0.155
octanes	17386.0	0.1325	0.00000762	0.1311	8.2	0.00517	0.067
nonanes+	2822.0	0.0018	0.00000063	0.0018	0.1	0.00008	0.001
Total:		101.0945		100.0000	1371.9	0.80429	20.142

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	101.0945	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Flowing Temperature (Deg. F)	98.0	
Flowing Pressure (psia)	117.0	
Gross Heating Value (BTU / Ideal cu.ft.)	1371.9	1348.0
Gross Heating Value (BTU / Real cu.ft.)	1378.1	1354.7

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	101.0945	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Lost Tank 18 CPF**Flare Date:** 09/02/2023**Duration of event:** 3 Hours 30 Minutes**MCF Flared:** 806**Start Time:** 08:00 AM**End Time:** 11:30 AM**Cause:** Emergency Flare > Third Party > USA Compression > Lost Tank 13 BOO > Mark West > MPLX**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 complete shut-down of Oxy and MPLX pipeline pigging. This interruption, restriction or complete shut-in of Oxy and USA Compression Equipment of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, MPLX, third party owned and operated downstream operator, suddenly and unexpectedly pinched back the discharge valve and reduced their gas volume intake rate from 40 million to 10 million, from the Lost Tank 13 Boo compressor station, which is owned and operated by USA Compression, as a result of MPLX having issues with their Tornado gas plant, which then caused the Lost Tank 13 Boo compressor station to have compression issues due to high discharge, which then prompted Oxy's Lost Tank 18 CPF to pressure up automatically and instigate a flaring event 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 USA Compression personnel or MarkWest personnel. Lost Tank 13 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, third party owned and operated downstream operator, suddenly and unexpectedly pinched back the discharge valve and reduced their gas volume intake rate from 40 million to 10 million, from the Lost Tank 13 Boo compressor station, which is owned and operated by USA Compression, as a result of MPLX having issues with their Tornado gas plant, which then caused the Lost Tank 13 Boo compressor station to have compression issues due to high discharge, which then prompted Oxy's Lost Tank 18 CPF to pressure up automatically and instigate a flaring event to occur.

As soon as the Oxy production tech, who was on-site, saw flaring occur, he began to make phone calls to USA Compression personnel to see why gas pipeline was experiencing high line pressure. The Oxy production tech then contacted Oxy's additional field personnel to begin making injection rate changes so that field pressure would stay below the flare trigger setpoints of the CTB to cease flaring. This event is out of OXY's control, yet 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 unable to take any corrective actions to eliminate the cause and potential reoccurrence of a downstream third-party owned and operated gas plant's issues, as this is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. MarkWest (MPLX) will have issues which may reoccur from time to time and may trigger a spike in the gas line pressure, which in turn, directly impacts Oxy's ability to send gas. When MarkWest (MPLX) has equipment issues or greatly struggles to handle the volume of gas being sent to them by Oxy, MarkWest (MPLX) then restricts Oxy's ability to send gas, which then prompts Oxy to route all its stranded gas not pushed into the MarkWest (MPLX) gas pipeline, to flare. 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 MarkWest (MPLX) personnel, who own and operate the sales gas pipeline, when possible, during these types of circumstances and USA Compression personnel.

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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 266034

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 266034
	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 266034

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 266034
	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 Not Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2226965761] Lost Tank 18 CPF
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, 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 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 > Third Party > USA Compression > Lost Tank 13 BOO > Mark West > MPLX

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	71
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

Action 266034

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	266034
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	09/02/2023
Time vent or flare was discovered or commenced	08:00 AM
Time vent or flare was terminated	11:30 AM
Cumulative hours during this event	4

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: 806 Mcf Recovered: 0 Mcf Lost: 806 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	
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 complete shut-down of Oxy and MPLX pipeline pigging. This interruption, restriction or complete shut-in of Oxy and USA Compression Equipment of the gas pipeline by a third-party pipeline compression station operator is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. In this case, MPLX, third party owned and operated downstream operator, suddenly and unexpectedly pinched back the discharge valve and reduced their gas volume intake rate from 40 million to 10 million, from the Lost Tank 13 Boo compressor station, which is owned and operated by USA Compression, as a result of MPLX having issues with their Tornado gas plant, which then caused the Lost Tank 13 Boo compressor station to have compression issues due to high discharge, which then prompted Oxy's Lost Tank 18 CPF to pressure up automatically and instigate a flaring event 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 USA Compression personnel or MarkWest personnel. Lost Tank 13 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.

Steps taken to limit the duration and magnitude of vent or flare	<p>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, third party owned and operated downstream operator, suddenly and unexpectedly pinched back the discharge valve and reduced their gas volume intake rate from 40 million to 10 million, from the Lost Tank 13 Boo compressor station, which is owned and operated by USA Compression, as a result of MPLX having issues with their Tornado gas plant, which then caused the Lost Tank 13 Boo compressor station to have compression issues due to high discharge, which then prompted Oxy's Lost Tank 18 CPF to pressure up automatically and instigate a flaring event to occur. As soon as the Oxy production tech, who was on-site, saw flaring occur, he began to make phone calls to USA Compression personnel to see why gas pipeline was experiencing high line pressure. The Oxy production tech then contacted Oxy's additional field personnel to begin making injection rate changes so that field pressure would stay below the flare trigger setpoints of the CTB to cease flaring. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.</p>
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	<p>Oxy is unable to take any corrective actions to eliminate the cause and potential reoccurrence of a downstream third-party owned and operated gas plant's issues, as this is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid, prevent from happening or reoccur. MarkWest (MPLX) will have issues which may reoccur from time to time and may trigger a spike in the gas line pressure, which in turn, directly impacts Oxy's ability to send gas. When MarkWest (MPLX) has equipment issues or greatly struggles to handle the volume of gas being sent to them by Oxy, MarkWest (MPLX) then restricts Oxy's ability to send gas, which then prompts Oxy to route all its stranded gas not pushed into the MarkWest (MPLX) gas pipeline, to flare. 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 MarkWest (MPLX) personnel, who own and operate the sales gas pipeline, when possible, during these types of circumstances and USA Compression personnel.</p>

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ACKNOWLEDGMENTS

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	Action Number: 266034
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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 266034

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 266034
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
marialuna2	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.	9/17/2023