



Natural Gas Analysis Report

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

	Sample Information
Sample Name	CEDAR CANYON LP TO ENTERPRISE
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-09-2023
Meter Number	14809C
Air temperature	56
Flow Rate (MCF/Day)	41659
Heat Tracing	HEATED HOSE & GASIFIER
Sample description/mtr name	CEDAR CANYON LP TO ENTERPRISE
Sampling Method	FILL & EMPTY
Operator	OCCIDENTAL PETROLEUM
State	NEW MEXICO
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	NMSW
FLOC	OP-L0967-BT001
Sample Sub Type	CDP
Sample Name Type	METER
Vendor	AKM MEASUREMENT
Cylinder #	3052
Sampled by	J E
Sample date	3-9-2023
Analyzed date	3-15-2023
Method Name	C9
Injection Date	2023-03-15 16:55:06
Report Date	2023-03-15 17:00:57
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	d616d38e-1ef0-43ac-940b-70858213bc73
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	20279.7	1.1489	0.00005665	1.1511	0.0	0.01113	0.127	
Methane	1026331.0	75.0975	0.00007317	75.2390	761.7	0.41675	12.804	
CO2	9621.2	0.4538	0.00004717	0.4547	0.0	0.00691	0.078	
Ethane	262551.1	11.9875	0.00004566	12.0101	213.0	0.12469	3.224	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	187774.5	6.1281	0.00003264	6.1397	154.8	0.09348	1.698	
iso-butane	80466.7	0.8972	0.00001115	0.8989	29.3	0.01804	0.295	
n-Butane	196029.9	2.1635	0.00001104	2.1676	70.9	0.04350	0.686	
iso-pentane	55079.7	0.5342	0.00000970	0.5352	21.5	0.01333	0.196	
n-Pentane	65775.1	0.6222	0.00000946	0.6234	25.0	0.01553	0.227	
hexanes	53531.0	0.4052	0.00000757	0.4060	19.4	0.01208	0.168	
heptanes	42936.0	0.2653	0.00000618	0.2658	14.7	0.00920	0.123	
octanes	17502.0	0.0951	0.00000543	0.0953	6.0	0.00376	0.049	
nonanes+	2977.0	0.0132	0.00000442	0.0132	0.9	0.00058	0.007	
Total:		99.8117		100.0000	1317.1	0.76898	19.683	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	99.8117		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	75.0		
Flowing Temperature (Deg. F)	81.0		

Result	Dry	Sat.	
Gross Heating Value (BTU / Ideal cu.ft.)	1317.1	1294.2	
Gross Heating Value (BTU / Real cu.ft.)	1322.5	1300.1	
Relative Density (G), Real	0.7718	0.7696	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.8117	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Cedar Canyon CPD**Flare Date:** 05/03/2023**Duration of event:** 2 Hours 30 Minutes**MCF Flared:** 303**Start Time:** 03:20 AM**End Time:** 05:50 AM**Cause:** Emergency Flare > Third Party Downstream Activity > Enterprise > Gas Plant Compression Issues**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:** This C-129 consists of several intermittent flaring instances within a 24-Hour period.

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-in of a gas pipeline by a third-party pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in 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, Enterprise, third party owned and operated downstream pipeline operator, Enterprise, had multiple instances of equipment issues at its gas plant, which in turn, affected their gas pipeline. causing high line pressure to occur, which then prompted Oxy's upstream facilities in the area to pressure up automatically and trigger flaring to occur several times within a 24-hour period, at a gas gathering system flare. 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 Enterprise.

Intermittent Flaring Caused by Downstream 3rd Party Operator, Enterprise:

- 03:20 AM to 04:00 AM – 40 Minutes
- 07:40 AM to 08:00 AM – 20 Minutes
- 12:40 PM to 01:40 PM – 1 Hour
- 06:30 PM to 07:00 PM – 30 Minutes

The Cedar Canyon CPD is a gas gathering flare system for multiple tank batteries across Oxy's defined Cedar Canyon area. Oxy made every effort to shut in as much of production/wells as possible, yet it was absolutely critical to Oxy's operational safety and start up procedures to allow some production to occur across the area, as it was necessary to maintain a minimal amount of gas flow to restart the compression equipment, specifically the gas lift compressors, across the Cedar Canyon area, when Enterprise was ready and able to start taking full volume of gas. The minimal amount of gas flow allowed to be produced and flare was done out of necessity to protect personnel and equipment as a safeguard against potential issues that could occur when restarting production across the Cedar Canyon area.

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, Enterprise, third party owned and operated downstream pipeline operator, Enterprise, had multiple instances of equipment issues at its gas plant, which in turn, affected their gas pipeline. causing high line pressure to occur, which then prompted Oxy's upstream facilities in the area to pressure up automatically and trigger flaring to occur several times within a 24-hour period, at a gas gathering system flare. As soon as flaring was triggered during each occurrence, field personnel engaged in Oxy's third party pipeline operation curtailment reactive stratagems and assist with ensuring field area's mitigation optimizers cut injection rates to wells in the field to reduce injection and sales ga across the area. In addition, as soon as flaring alarms were received by field personnel, they began to shut-in several wells across the area to assist with reducing field pressure so that it would stay below the flare trigger setpoints of the CTB to cease flaring, which took some time to do. 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 sales gas pipeline's sudden and unexpected high line pressure 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. Enterprise's downstream facilities and associated facilities, may have compression equipment issues which will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise has downstream activity issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas not pushed into the Enterprise 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 Enterprise personnel, who own and operate the sales gas pipeline, when possible, during these types of circumstances.

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
District IV
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 218342

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 218342
	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 218342

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 218342
	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	[fAPP2126642013] CEDAR CANOYN GAS GATHERING

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	Emergency Flare > Third Party Downstream Activity > Enterprise > Gas Plant Compression Issues

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	75
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 218342

QUESTIONS (continued)

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	Action Number: 218342
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	05/03/2023
Time vent or flare was discovered or commenced	03:20 AM
Time vent or flare was terminated	05:50 AM
Cumulative hours during this event	3

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: 303 Mcf Recovered: 0 Mcf Lost: 303 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	[713731] Enterprise Crude Pipeline LLC
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 event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline compressor station operator, which impacted Oxy's ability to send gas to them. This interruption, restriction or complete shut-in 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, Enterprise, third party owned and operated downstream pipeline operator, Enterprise, had multiple instances of equipment issues at its gas plant, which in turn, affected their gas pipeline. causing high line pressure to occur, which then prompted Oxy's upstream facilities in the area to pressure up automatically and trigger flaring to occur several times within a 24-hour period, at a gas gathering system flare. 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 Enterprise.
Steps taken to limit the duration and magnitude of vent or flare	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, Enterprise, third party owned and operated downstream pipeline operator, Enterprise, had multiple instances of equipment issues at its gas plant, which in turn, affected their gas pipeline. causing high line pressure to occur, which then prompted Oxy's upstream facilities in the area to pressure up automatically and trigger flaring to occur several times within a 24-hour period, at a gas gathering system flare. As soon as flaring was triggered during each occurrence, field personnel engaged in Oxy's third party pipeline operation curtailment reactive stratagems and assist with ensuring field area's mitigation optimizers cut injection rates to wells in the field to reduce injection and sales ga across the area. In addition, as soon as flaring alarms were received by field personnel, they began to shut-in several wells across the area to assist with reducing field pressure so that it would stay below the flare trigger setpoints of the CTB to cease flaring, which took some time to do. This event is out of OXY's control, yet OXY made every effort to control and minimize emissions as much as possible.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is unable to take any corrective actions to eliminate the cause and potential reoccurrence of a downstream third-party owned and operated sales gas pipeline's sudden and unexpected high line pressure 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. Enterprise's downstream facilities and associated facilities, may have compression equipment issues which will reoccur from time to time and may trigger a spike in their gas line pressure, which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise has downstream activity issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas not pushed into the Enterprise 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 Enterprise personnel, who own and operate the sales gas pipeline, when possible, during these types of circumstances.

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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

Action 218342

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	Action Number: 218342
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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.	5/18/2023