



Certificate of Analysis

Number: 6030-21120130-003A

Artesia Laboratory

200 E Main St.
Artesia, NM 88210
Phone 575-746-3481Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Dec. 15, 2021

Field:	Red Tank	Sampled By:	Michael Mirabal
Station Name:	Red Tank 19 CTB Train 2 Check	Sample Of:	Gas Spot
Station Number:	15622C	Sample Date:	12/13/2021 10:20
Station Location:	CTB	Sample Conditions:	92 psig, @ 76 °F Ambient: 53 °F
Sample Point:	Meter	Effective Date:	12/13/2021 10:20
Formation:	Monthly	Method:	GPA-2261M
County:	Lea, NM	Cylinder No:	5030-01624
Type of Sample:	Spot-Cylinder	Instrument:	70142339 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	12/06/2021 0:00 AM
Sampling Method:	Fill and Purge	Analyzed:	12/15/2021 11:24:15 by ERG
Sampling Company:	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.002	0.003		GPM TOTAL C2+	5.984
Nitrogen	2.194	2.201	2.678		GPM TOTAL C3+	3.142
Methane	72.085	72.313	50.388		GPM TOTAL iC5+	0.716
Carbon Dioxide	4.626	4.641	8.872			
Ethane	10.612	10.646	13.905	2.842		
Propane	5.652	5.670	10.860	1.559		
Iso-butane	0.772	0.774	1.954	0.253		
n-Butane	1.944	1.950	4.923	0.614		
Iso-pentane	0.467	0.468	1.467	0.171		
n-Pentane	0.495	0.497	1.558	0.180		
Hexanes Plus	0.835	0.838	3.392	0.365		
	99.682	100.000	100.000	5.984		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7978	3.2176
Calculated Molecular Weight	23.02	93.19
Compressibility Factor	0.9960	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1233	5113
Water Sat. Gas Base BTU	1212	5024
Ideal, Gross HV - Dry at 14.65 psia	1228.0	5113.2
Ideal, Gross HV - Wet	1206.5	5023.7
Net BTU Dry Gas - real gas	1120	
Net BTU Wet Gas - real gas	1101	

Comments: H₂S Field Content 20 ppm
Mcf/day 19757

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Red Tank 19 CTB**Flare Date:** 08/26/2022**Duration of event:** 35 Minutes**MCF Flared:** 219**Start Time:** 07:45 AM**End Time:** 08:20 AM**Cause:** Compression Equipment Malfunctions > Gas Compressor Units #1,2,4 and 6 > Detonation**Method of Flared Gas Measurement:** Gas Flare Meter**Comments:**

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 by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, gas sales compressor units # 1, 2, 4 and 6, suddenly and unexpectedly malfunctioned due to detonation and automatically shut down. 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. Gas compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit, as in the case of gas compressor units # 1, 2, 4 and 6. 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 these simultaneous malfunctions 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, gas sales compressor units # 1, 2, 4 and 6, suddenly and unexpectedly malfunctioned due

to detonation and automatically shut down. 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. Gas compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit, as in the case of gas compressor units # 1, 2, 4 and 6. Detonation occurs without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. Oxy production techs were on-site when the malfunctions occurred, and flaring began. Oxy production techs immediately inspected the units and finding no other cause than detonation, began clearing the alarm panels and restarting the gas compression units. Once the units were brought to optimized working speed, did flaring cease. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. All compression units at the facility were operating as designed and running normally prior to these simultaneous and unavoidable malfunctions occurring.

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 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.

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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 142160

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 142160
	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 142160

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	142160
	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	Not answered.
Incident Facility	[fAPP2127031815] RED TANK 19 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	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 > Compression Equipment Malfunctions > Gas Compressor Units #1,2,4 and 6 > Detonation

Representative Compositional Analysis of Vented or Flared Natural Gas

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

Methane (CH4) percentage	72
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	20
Carbon Dioxide (CO2) percentage, if greater than one percent	5
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 142160

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	08/26/2022
Time vent or flare was discovered or commenced	07:45 AM
Time vent or flare was terminated	08:20 AM
Cumulative hours during this event	1

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: 219 Mcf Recovered: 0 Mcf Lost: 219 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 by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, gas sales compressor units # 1, 2, 4 and 6, suddenly and unexpectedly malfunctioned due to detonation and automatically shut down. 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. Gas compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit, as in the case of gas compressor units # 1, 2, 4 and 6. 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 these simultaneous malfunctions occurring.
Steps taken to limit the duration and magnitude of vent or flare	In this case, gas sales compressor units # 1, 2, 4 and 6, suddenly and unexpectedly malfunctioned due to detonation and automatically shut down. 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. Gas compressor engines are designed to operate in a precise manner and when detonation occurs, it disrupts the gas compressor's operating manner and cuts off engine power, which in turn, prompts an automatic shutdown of the unit, as in the case of gas compressor units # 1, 2, 4 and 6. Detonation occurs without warning and therefore, Oxy is unable to predict, avoid or prevent this type of malfunction from occurring. Oxy production techs were on-site when the malfunctions occurred, and flaring began. Oxy production techs immediately inspected the units and finding no other cause than detonation, began clearing the alarm panels and restarting the gas compression units. Once the units were brought to optimized working speed, did flaring cease. This malfunctioning event is out of OXY's control. OXY made every effort to control and minimize emissions as much as possible. All compression units at the facility were operating as designed and running normally prior to these simultaneous and unavoidable malfunctions occurring.
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ACKNOWLEDGMENTS

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[C-129] Venting and/or Flaring (C-129)	

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 142160

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	Action Number: 142160
	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.	9/11/2022