



Certificate of Analysis

Number: 6030-20020127-004A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Feb. 25, 2020

Field: Cedar Canyon
Station Name: Corral Fly 2_1 St 21H GL
Station Number: 181211
Station Location: OXY
Sample Point: Meter Run
Formation: Quarterly
County: Eddy
Type of Sample: : Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: : Fill and Purge
Sampling Company: : SPL

Sampled By: Chad Whitt
Sample Of: Gas Spot
Sample Date: 02/20/2020 01:00
Sample Conditions: 1161.4 psig, @ 85.7 °F Ambient: 40 °F
Effective Date: 02/20/2020 01:00
Method: GPA-2261M
Cylinder No: 1111-002459
Instrument: 6030_GC2 (Agilent 7890B)
Last Inst. Cal.: 02/17/2020 17:06 PM
Analyzed: 02/25/2020 10:15:03 by User1

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.298	1.304	1.730		GPM TOTAL C2+	5.911
Methane	77.087	77.445	58.835		GPM TOTAL C3+	2.695
Carbon Dioxide	0.137	0.138	0.288		GPM TOTAL iC5+	0.353
Ethane	11.993	12.049	17.158	3.216		
Propane	5.740	5.767	12.043	1.585		
Iso-butane	0.710	0.713	1.963	0.233		
n-Butane	1.658	1.666	4.586	0.524		
Iso-pentane	0.320	0.321	1.097	0.117		
n-Pentane	0.334	0.336	1.148	0.122		
Hexanes Plus	0.260	0.261	1.152	0.114		
	99.537	100.000	100.000	5.911		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7314	3.2176
Calculated Molecular Weight	21.12	93.19
Compressibility Factor	0.9964	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1258	5113
Water Sat. Gas Base BTU	1237	5024
Ideal, Gross HV - Dry at 14.65 psia	1253.8	5113.2
Ideal, Gross HV - Wet	1231.9	
Net BTU Dry Gas - real gas	1142	
Net BTU Wet Gas - real gas	1122	

Comments: H2S Field Content 0 ppm
Mcf/day 1444.2

Hydrocarbon Laboratory Manager

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

EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Corral 2S CS**Start Date:** 06/04/2021**End Date:** 06/04/2021**Cause:** Compressor Malfunction**Duration of event:** 15 minutes**MCF Volume Flared:** 103**Method of Flared Gas Measurement:** Flare Meter

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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions.

During this event, the flaring was caused due to compressor malfunction spark plug wire came loose causing a compressor unit to shut down. An Oxy production technician was responded to the event quickly and refasten the spark plug within 15 minutes from the start of the event. Prior to the sudden breakdown of the gas compressor unit, the unit was working as designed. Once the unit was restarted, all flaring ceased. During the event, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to minimize emissions as much as possible.

2. Steps Taken to limit duration and magnitude of venting or flaring:

Although this is not a manned site, in this case, Oxy production techs were able to quickly respond (within 15 minutes) and refasten the loose spark plug and restart the unit. Once the unit was restarted, flaring ceased.

3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

The 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 cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design, operation, and maintenance; various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing

emissions and reducing the number of emission events. Oxy has a dedicated compression equipment preventative maintenance program in place.

District I1625 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

QUESTIONS

Action 42367

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 42367
	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	[30-015-44507] CORRAL FLY 02 01 STATE #021H
Incident Facility	Not answered.

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 or is this venting and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a notification of a major venting and/or flaring	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 or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/or flaring 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 venting and/or flaring within an incorporated municipal boundary or withing 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 due to compressor malfunction

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	77
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.

Date(s) and Time(s)	
Date venting and/or flaring was discovered or commenced	06/04/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	12:15 AM
Cumulative hours during this event	0

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: 103 Mcf Recovered: 0 Mcf Lost: 103 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	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 or is this venting and/or flaring a result of downstream activity	Not answered.
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/or flaring	Not answered.

Steps and Actions to Prevent Waste	
For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your 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 or prevented by good design, operation, and preventative maintenance practices. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, due to malfunction and/or alarms, production techs are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. During this event, the flaring was caused due to compressor malfunction spark plug wire came loose causing a compressor unit to shut down. An Oxy production technician was responded to the event quickly and refasten the spark plug within 15 minutes from the start of the event. Prior to the sudden breakdown of the gas compressor unit, the unit was working as designed. Once the unit was restarted, all flaring ceased. During the event, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to minimize emissions as much as possible.
Steps taken to limit the duration and magnitude of venting and/or flaring	Although this is not a manned site, in this case, Oxy production techs were able to quickly respond (within 15 minutes) and refasten the loose spark plug and restart the unit. Once the unit was restarted, flaring ceased.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	The 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 cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design, operation, and maintenance; various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a dedicated compression equipment preventative maintenance program in place.

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CONDITIONS

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	Action Number: 42367
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	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.	8/16/2021