



Certificate of Analysis

Number: 6030-21030124-006A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

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

Mar. 12, 2021

Field:	Mesa Verde	Sampled By:	Javier Lazo
Station Name:	Mesa Verde BSU 18H LG	Sample Of:	Gas Spot
Station Number:	15538I	Sample Date:	03/10/2021 09:30
Station Location:	OXY	Sample Conditions:	1185 psia, @ 89 °F Ambient: 67 °F
Sample Point:	Meter Run	Effective Date:	03/10/2021 09:30
Formation:	Quarterly	Method:	GPA-2261M
County:	Lea	Cylinder No:	5030-01186
Type of Sample:	Spot-Cylinder	Instrument:	70104251 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	03/08/2021 0:00 AM
Sampling Method:	Fill and Purge	Analyzed:	03/12/2021 13:31:22 by EJ R
Sampling Company:	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000	0.000		GPM TOTAL C2+	6.195
Nitrogen	1.367	1.362	1.750		GPM TOTAL C3+	2.934
Methane	75.196	74.948	55.148		GPM TOTAL iC5+	0.331
Carbon Dioxide	1.568	1.563	3.155			
Ethane	12.258	12.217	16.849	3.261		
Propane	6.378	6.357	12.857	1.748		
Iso-butane	0.810	0.807	2.151	0.264		
n-Butane	1.884	1.878	5.006	0.591		
Iso-pentane	0.325	0.324	1.072	0.118		
n-Pentane	0.325	0.324	1.072	0.117		
Hexanes Plus	0.221	0.220	0.940	0.096		
	100.332	100.000	100.000	6.195		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7553	3.2176
Calculated Molecular Weight	21.80	93.19
Compressibility Factor	0.9963	

GPA 2172 Calculation:

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

Real Gas Dry BTU	1259	5113
Water Sat. Gas Base BTU	1237	5024
Ideal, Gross HV - Dry at 14.65 psia	1253.9	5113.2
Ideal, Gross HV - Wet	1232.0	5023.7
Net BTU Dry Gas - real gas	1142	
Net BTU Wet Gas - real gas	1123	

Comments: H₂S Field Content 0 ppm
Mcf/day 839

Hydrocarbon Laboratory Manager

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

UPSET EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Mesa Verde 18 CTB**Date:** 12/17/2021**Duration of event:** 2 Hour 40 Minutes**MCF Flared:** 1173**Start Time:** 07:00 PM**End Time:** 09:40 PM**Cause:** Equipment Malfunction > VRU > Oxygen**Method of Flared Gas Measurement:** Gas Flare Meter F6001**Well API Associated with Facility:** 30-015-44551 Mesa Verde Bone Spring Unit #016H

Comments: This upset event was not caused by any wells associated with the facility. This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable issue 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.

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

This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable issue 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.

In this case, this sudden and unexpected flaring event occurred due to high oxygen levels were detected in the sales gas stream to third party pipeline operator, Enlink, who as a result, restricted their gas sales pipeline to Oxy until the oxygen issue was resolved. The sudden and unexpected malfunction which triggered oxygen to get into the gas sales steam stemmed from condensate build up in the pressure transmitter not allowing the transmitter (located on skid) to get a proper reading which prevented the VRU from shutting down on setpoint. The VRU ran outside of its parameters causing it to introduce oxygen into the gas system. Enlink shut in their gas sales pipeline until oxygen levels decreased to a point where they could re-open their sales valve up again.

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

It is Oxy's policy to route its stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible as part of the overall steps take to limit duration and magnitude of flaring. To significantly minimize emissions during this flaring event, Oxy production techs began to quickly shut-in multiple wells to minimize gas throughput to reduce flaring volumes and attempted to offload as much gas as possible to secondary offloading third party pipeline operator, DCP. OXY made every effort to control and minimize emissions as much as possible during this event.

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

Oxy is in the process of reviewing programming options of additional equipment malfunction alarms for field production techs to receive for occurrences involving protentional amplified oxygen levels within the gas sales stream in an effort to prevent this type of situation from occurring. 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 keep continually communicate with Enlink personnel during these types of situations.

District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
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District III
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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 69814

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 69814
	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 69814

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 69814
	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	Not answered.
Incident Facility	[fAPP2126659618] MESA VERDE 18 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, 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 > Equipment Malfunction > VRU > Oxygen

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	2
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 69814

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 69814
	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	12/17/2021
Time vent or flare was discovered or commenced	07:00 PM
Time vent or flare was terminated	09:40 PM
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: 1,173 Mcf Recovered: 0 Mcf Lost: 1,173 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
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 issue 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. In this case, this sudden and unexpected flaring event occurred due to high oxygen levels were detected in the sales gas stream to third party pipeline operator, Enlink, who as a result, restricted their gas sales pipeline to Oxy until the oxygen issue was resolved. The sudden and unexpected malfunction which triggered oxygen to get into the gas sales steam stemmed from condensate build up in the pressure transmitter not allowing the transmitter (located on skid) to get a proper reading which prevented the VRU from shutting down on setpoint. The VRU ran outside of its parameters causing it to introduce oxygen into the gas system. Enlink shut in their gas sales pipeline until oxygen levels decreased to a point where they could re-open their sales valve up again.
Steps taken to limit the duration and magnitude of vent or flare	It is Oxy's policy to route its stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, to minimize emissions as much as possible as part of the overall steps take to limit duration and magnitude of flaring. To significantly minimize emissions during this flaring event, Oxy production techs began to quickly shut-in multiple wells to minimize gas throughput to reduce flaring volumes and attempted to offload as much gas as possible to secondary offloading third party pipeline operator, DCP. OXY made every effort to control and minimize emissions as much as possible during this event.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is in the process of reviewing programming options of additional equipment malfunction alarms for field production techs to receive for occurrences involving protentional amplified oxygen levels within the gas sales stream in an effort to prevent this type of situation from occurring. 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 keep continually communicate with Enlink personnel during these types of situations.

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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

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	Action Number: 69814
	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.	1/1/2022