Certificate of Analysis

Number: 6030-21060266-009A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

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

June 28, 2021

Field:	Mesa Verde	Sampled By:	Javier Lazo
Station Name:	Mesa Verde CTB Check 1	Sample Of:	Gas Spot
Station Number:	15500C	Sample Date:	06/24/2021 12:20
Station Location:	CTB	Sample Conditions:	106 psia, @ 101 °F Ambient: 93 °F
Sample Point:	Meter	Effective Date:	06/24/2021 12:20
Formation:	Monthly	Method:	GPA-2261M
County:	Lea	Cylinder No:	5030-01777
Type of Sample: :	Spot-Cylinder	Instrument:	70104124 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	05/18/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	06/25/2021 14:54:47 by KNF
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	1.446	1.45303	1.761	
Carbon Dioxide	2.484	2.49523	4.751	
Methane	72.469	72.81178	50.535	
Ethane	11.579	11.63370	15.135	3.107
Propane	6.462	6.49283	12.387	1.786
Iso-Butane	0.840	0.84387	2.122	0.276
n-Butane	2.093	2.10249	5.287	0.662
Iso-Pentane	0.509	0.51130	1.596	0.187
n-Pentane	0.584	0.58656	1.831	0.212
Hexanes	0.414	0.41575	1.550	0.171
Heptanes	0.369	0.37104	1.609	0.171
Octanes	0.216	0.21702	1.073	0.111
Nonanes Plus	0.065	0.06540	0.363	0.037
	99.530	100.00000	100.000	6.720

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.11	128.26
Compressibility Factor	0.9957	
Relative Density Real Gas	0.8012	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1304.4	6974.4
Water Sat. Gas Base BTU	1282.2	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1298.9	6974.4
Ideal, Gross HV - Wet	1276.2	6852.4

Comments: H2S Field Content 0 ppm
Mcf/day 26972

Data reviewed by: Eric Ramirez, Analyst

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

Powered By SURECHEM Scott Brasley

EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Mesa Verde 18 CTB

Start Date: 06/26/2021 @ 08: 15 AM **End Date:** 06/26/2021 @ 09:35 AM

Cause: Downstream Activity > Enlink, third-party pipeline operator

Duration of event: 1 hour 20 minutes

Method of Flared Gas Measurement: SE MV Flare Meter F6001

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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 operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to 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. It is Oxy's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

In this case, this sudden and unexpected emergency flaring event occurred due to third party pipeline operator, Enlink's, delivery station, El Paso Zorro station, whose facility station, unexpectedly shutdown, the day before, which was caused by weather related power issues, yet, greatly impacted the gas flow from Oxy's upstream facility to Enlink's gas pipeline, was still having issues at their downstream facility. OXY was not given advance notification regarding the need for another shut in due to Enlink's problem on their end. As soon as Oxy production techs noticed that the pipeline pressure was rising yet again, a direct phone call was made to Enlink's point of contact to determine cause for the second time. As soon as OXY was informed of Enlink's problem and the gas pipeline was shut-in with no ETA on return to service, then Oxy production techs immediately initiated emergency offloading alternative reactive plans, yet again, by opening the DCP pipeline flow line and offloading as much possible gas to them, until Oxy production techs could shut in enough wells to reduce gas production and thereby, minimize emissions and cease flaring. All OXY operations and facility equipment were running at maximized optimization prior to the shutdown of Enlink's delivery station, El Paso Zorro, and their inability to take Oxy's volume of gas. During this flaring event, OXY personnel continually monitored the DCP line pressure in order to make necessary adjustments to its own compression equipment, when warranted, until Enlink's delivery station was able to begin taking all the gas Oxy sent their way. This incident was completely out of Oxy's control to prevent from

happening. OXY made every effort to control and minimize emissions as much as possible during this event.

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

It is OXY's policy to route all stranded sales gas to a flare during a sudden, unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

In this case, the steps taken to limit duration and magnitude of flaring was for Oxy production techs to quickly engage, again, in Oxy's emergency offloading alternative reactive process by opening the DCP pipeline flow line and offloading as much possible gas to them, until Oxy production techs could shut in wells to reduce enough gas production to match available offload limits and thereby, minimizing emissions until flaring was ceased. All OXY operations and facility equipment were running at maximized optimization prior to the shutdown of Enlink's delivery station, and their inability to take Oxy's volume of gas. During this flaring event, OXY personnel continually monitored the DCP line pressure in order to make necessary adjustments to its own compression equipment, when warranted, until Enlink's and its delivery station were able to begin taking all the gas Oxy sent their way. Once Enlink was taking gas again, and their pipeline gas line pressure was back to normal, Oxy production techs gradually re-opened wells they had previously shut in and adjusted the compression equipment to maximized optimization in a safe and diligent manner. This incident was completely out of Oxy's control to prevent from happening. 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:

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 operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to 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. It is Oxy's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

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District IV
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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

QUESTIONS

Action 35886

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 35886
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional guidance.	
Was or is this venting or flaring caused by an emergency or malfunction	Yes
Did or will this venting 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 or flaring	**Yes, minor venting or flaring of natural gas.**
The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting 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 or flared during this event	Yes
Did this venting 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

Unregistered Facility Site	
Please provide the facility details, if the venting or flaring occurred or is occuring at a facility that does not have an Facility ID (f#) yet.	
Facility or Site Name	Mesa Verde 18 CTB
Facility Type	Tank Battery - (TB)

Equipment Involved	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare, Downstream Activity, Enlink

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	73
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	2
Oxygen (02) 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 Sufide (H2S) PPM quality requirement	*Not answered.*
Carbon Dioxide (C02) percentage quality requirement	*Not answered.*
Oxygen (02) percentage quality requirement	*Not answered.*

Date(s) and Time(s)	
Date venting or flaring was discovered or commenced	06/26/2021
Time venting or flaring was discovered or commenced	08:15 AM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	06/26/2021
Time venting or flaring was terminated	09:35 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	2
Longest duration of cumulative hours within any 24-hour period 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 | Spilled: 226 Mcf | Recovered: 0 Mcf | Lost: 226 Mcf]
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	Emergency Flare Meter
Is this a gas only submission (i.e. only 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 or flaring a result of downstream activity	Yes
Date notified of downstream activity requiring this venting or flaring	*Not answered.*
Time notified of downstream activity requiring this venting 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	See Justification Form >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 operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to 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. It is Oxy's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.
Steps taken to limit the duration and magnitude of venting or flaring	See Justification Form >In this case, the steps taken to limit duration and magnitude of flaring was for Oxy production techs to quickly engage, again, in Oxy's emergency offloading alternative reactive process by opening the DCP pipeline flow line and offloading as much possible gas to them, until Oxy production techs could shut in wells to reduce enough gas production to match available offload limits and thereby, minimizing emissions until flaring was ceased. All OXY operations and facility equipment were running at maximized optimization prior to the shutdown of Enlink's delivery station, and their inability to take Oxy's volume of gas. During this flaring event, OXY personnel continually monitored the DCP line pressure in order to make necessary adjustments to its own compression equipment, when warranted, until Enlink's and its delivery station were able to begin taking all the gas Oxy sent their way. Once Enlink was taking gas again, and their pipeline gas line pressure was back to normal, Oxy production techs gradually re-opened wells they had previously shut in and adjusted the compression equipment to maximized optimization in a safe and diligent manner. This incident was completely out of Oxy's control to prevent from happening. 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 venting or flaring	See Justification Form >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 operator, which impacted Oxy's ability to send gas to a third-party gas pipeline.

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CONDITIONS

Action 35886

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 35886
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
system	If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event.	7/10/2021