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 EJR
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	Total	C6+
Relative Density Real Gas	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.

Scott Brady

Sign not here

UPSET EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Mesa Verde 18 CTB **Date:** 11/07/2021

Duration of event: 1 Hour 5 Minutes **MCF Flared:** 190

Start Time: 02:45 PM **End Time:** 03:50 PM

Cause: Downstream Activity> Enlink > Charro Station & Rico Station

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.

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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.

In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enlink's downstream facilities, Charro station and Rico station, were having power loss and subsequent equipment issues, which in turn, caused the line pressure to spike extremely high, instigating Enlink to restrict the volume of gas Oxy was not allowed to be pushed into the Enlink gas services system pipeline. Enlink's facility and its equipment issues are downstream of Oxy's custody transfer point yet greatly impacted the gas flow from Oxy's upstream facility to their gas pipeline, which then activated a flaring event at Oxy's upstream facility. Until Enlink's downstream facilities was able to handle the volume of gas sent to them, the spike in line pressure forced Oxy's upstream facility to route its stranded gas to a flare, as it was not able to push all its gas into its secondary offload operator's, DCP, gas pipeline.

No advance warning of any kind was provided to Oxy personnel from Enlink personnel regarding issues with their gas service system pipeline, and/or issues with their downstream facilities. Oxy personnel had to contact Enlink directly when flaring started at its upstream facility to determine cause, as all Oxy's facility equipment were operating as designed prior to the flaring event occurring.

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

In this case, the steps taken to limit the duration of this flare is that Oxy's internal policy during an unforeseen and unavoidable emergency or malfunction route is to route all stranded gas to a flare 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. In addition, Oxy production techs contacted Enlink personnel immediately upon rising high pressure line alarms to determine cause of the increase in Enlink's line pressure then Oxy production techs continually monitored Enlink's line pressure in order to make necessary adjustments to Oxy's own compression equipment, when warranted, until Enlink's line pressure was back to normal and flaring ceased. Prior to the spike in Enlink's pipeline pressure, which impacted Oxy's ability to send all its gas to them, Oxy's compression equipment was running and operating at maximized optimization. Flaring did not occur until Enlink's downstream facility and its associating facility, Charro station and Rico station were unable to handle the volume of gas loads sent to them. 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:

Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of an Enlink gas flow pipeline restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening or reoccurring. Enlink's downstream facility issues will re-occur from time to time and may trigger a spike in their gas line pressure, which in turn, is out of Oxy's control to avoid or prevent from happening yet directly impacts Oxy's ability to send gas to them and causes Oxy's upstream facility to flare. When Enlink's downstream facility and/or its facility equipment has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enlink then restricts Oxy's ability to send gas, which then prompts Oxy to route all of its stranded gas not pushed into the its secondary offload 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 keep continually communicate with Enlink personnel during these types of situations.

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1625 N. French Dr., Hobbs, NM 88240
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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 64543

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 64543
	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	**[fAPP2126659618] MESA VERDE 18 CTB**

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 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	Yes
Is this considered a submission for a venting and/or flaring 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 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	*Not answered.*
Additional details for Equipment Involved. Please specify	Emergency Flare > Downstream Activity> Enlink > Facility Power Outage

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 (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 and/or flaring was discovered or commenced	11/05/2021
Time venting and/or flaring was discovered or commenced	09:00 AM
Time venting and/or flaring was terminated	06:00 PM
Cumulative hours during this event	9

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: 1,910 Mcf | Recovered: 0 Mcf | Lost: 1,910 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 or is this venting and/or flaring a result of downstream activity	Yes
Was notification of downstream activity received by you or your operator	No
Downstream OGRID that should have notified you or your operator	[320009] ENLINK MIDSTREAM OPERATING, LP
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	In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enlink's downstream facility, Lobo station, having a power outage at their station, and then suffered ensuing compressor equipment issues, which in turn, caused the line pressure to spike extremely high, intermittently for roughly about nine hours. The first high line pressure spike was initially due to the power outage which had occurred at its station, and its subsequent high line pressure spikes occurred to compressor equipment issues which kept malfunctioning, prompting Enlink to intermittently restrict the volume of gas Oxy was not allowed to be pushed into the Enlink gas services system pipeline. Enlink's facility and its equipment issues are downstream of Oxy's custody transfer point yet greatly impacted the gas flow from Oxy's upstream facility to their gas pipeline, which then activated several flaring events at Oxy's upstream facility. Until Enlink's downstream facilities were able to handle the volume of gas sent to them, the intermittent spikes in line pressure forced Oxy's upstream facility to route its stranded gas to a flare.
Steps taken to limit the duration and magnitude of venting and/or flaring	In this case, the steps taken to limit the duration of this flare is that Oxy's internal policy during an unforeseen and unavoidable emergency or malfunction route is to route all stranded gas to a flare to minimize emissions as much as possible as part of the overall process to limit duration and magnitude of venting or flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, this sudden and unexpected flaring event occurred due to third party pipeline operator, Enlink's downstream facility, Lobo station, having a power outage at their station, and then suffered ensuing compressor equipment issues, which in turn, caused the line pressure to spike extremely high, intermittently for roughly about nine hours. Oxy production techs contacted Enlink personnel immediately upon rising/spiking high pressure line alarms to determine cause of the increase in Enlink's line pressure and subsequent sales gas service system pipeline restriction. Once cause of the high line pressure spikes was determined, Oxy production techs continually monitored Enlink's line pressure to make necessary adjustments to Oxy's own compression equipment, when warranted, until Enlink's gas service restriction was lifted, their line pressure was back to normal and flaring ceased for each intermittent episode which occurred. Prior to the spikes in Enlink's pipeline pressure, which impacted Oxy's ability to send its gas to them, Oxy's compression equipment was running and operating at maximized optimization. Each intermittent flaring episode that occurred, did so, when Enlink's downstream facility was unable to handle the volume of gas loads sent to them. This event was completely out of Oxy's control to prevent from happening yet OXY made every effort to control and minimize emissions as much as possible.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Oxy is limited in the corrective actions to eliminate the cause and potential reoccurrence of an Enlink gas flow pipeline restriction or shut-in, as this control issue is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening or reoccurring. Enlink's downstream facility issues will re-occur from time to time and may trigger a spike in their gas line pressure, which in turn, is out of Oxy's control to avoid or prevent from happening yet directly impacts Oxy's ability to send gas to them and causes Oxy's upstream facility to flare. When Enlink's downstream facility and/or its facility equipment has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enlink then restricts Oxy's ability to send gas, which then prompts Oxy to route its stranded gas 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 keep continually communicate with Enlink personnel during these types of situations.

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CONDITIONS

Action 64543

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 64543
	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.	12/1/2021