



# Certificate of Analysis

Number: 6030-21060185-002A

**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 21, 2021

Field:	Cal Mon	Sampled By:	Michael Mirabal
Station Name:	Pure Gold A Fed 8 Battery	Sample Of:	Gas Spot
Station Number:	83293	Sample Date:	06/17/2021 08:21
Station Location:	CTB	Sample Conditions:	30 psia, @ 86 °F Ambient: 82 °F
Sample Point:	Meter	Effective Date:	06/17/2021 08:21
Formation:	Quarterly	Method:	GPA-2261M
County:	Eddy	Cylinder No.:	1111-001222
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:	06/21/2021 09:45:07 by KNF
Sampling Company:	SPL		

## Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	5.004	5.04821	5.940	
Carbon Dioxide	0.110	0.11066	0.205	
Methane	69.004	69.61086	46.901	
Ethane	11.712	11.81450	14.921	3.156
Propane	7.762	7.83037	14.502	2.155
Iso-Butane	0.865	0.87220	2.129	0.285
n-Butane	2.053	2.07136	5.056	0.652
Iso-Pentane	0.532	0.53648	1.626	0.196
n-Pentane	0.501	0.50541	1.532	0.183
Hexanes	0.362	0.36559	1.323	0.150
Heptanes	0.416	0.41956	1.766	0.193
Octanes	0.489	0.49310	2.366	0.252
Nonanes Plus	0.319	0.32170	1.733	0.181
	<u>99.129</u>	<u>100.00000</u>	<u>100.000</u>	<u>7.403</u>

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C9+</b>
Calculated Molecular Weight	23.81	128.26
Compressibility Factor	0.9955	
Relative Density Real Gas	0.8255	4.4283

**GPA 2172 Calculation:**

**Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia & 60°F**

Real Gas Dry BTU	1342.4	6974.4
Water Sat. Gas Base BTU	1319.5	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1336.4	6974.4
Ideal, Gross HV - Wet	1313.0	6852.4

**Comments:** H2S Field Content 0 ppm  
 Mcf/day 291

*Jesus Escobedo*

*Eric Ramirez*

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.

### EVENT SPECIFIC JUSTIFICATIONS FORM

**Facility:** Pure Gold A8 is nearest facility (Remote location: 32.2920609, -103.7849197)

**Start Date:** 06/19/2021

**End Date:** 06/19/2021

**Cause:** Gas Line Damage - Malfunction

**Duration of event:** 24 hours

**MCF Volume Flared:** 241

**Method of Flared Gas Measurement:** Allocation

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

The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.

Oxy contracts with third-party aerial survey contractors, and on July 12, 2021, Oxy became aware of a potential leak detected in the middle of a remote field. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.

Once the leak was verified and stopped, and the damaged gas line was repaired, Oxy's Operations group then transitioned its focus on performing an extensive review to determine how long the leak may have gone on for. The review demanded a significant amount of time and resources, including conducting field visits to ensure the leak was isolated to this remote gas line, and performing extensive data analysis of historical production and pressure records on the Pure Gold A Fed 8 battery production meter.

The group determined that the leak was isolated to the damaged gas line, and also identified an August 31, 2020 pressure drop, providing insight into the potential timing of when the leak first occurred. While not certain, the group used best engineering and operational estimates to determine that, based on the pressure drop on August 31, 2020 found in historical production and pressure records, it is possible that a total of 79,369 mscf of gas may have leaked from the failed seam on the gas line, an amount that meets the definition of a "major release." This estimated total covers the timeframe from August 31, 2020 until July 13, 2021, when the leak was stopped.

Upon conclusion of the review, when Oxy had an objectively reasonable basis to determine that a major release likely took place, Oxy reached out to the Division, and informed them of the event and our plans to submit a C-141 for the time period covering August 31, 2020 until May 24, 2021 (the day before the NMOCD's venting/flaring rule went into effect) for estimated emissions of 66,646 mscf, and that additional C-129's would be submitted for May 25, 2021 until July 11, 2021, and July 13, 2021 for a total of 12,420 mscf covering both timeframes. A C-129 has already been submitted for July 12, 2021, the day Oxy became aware of a potential leak, reporting 303 mscf for that day. It should be noted that upon further review and after the first C-129 submittal covering July 12, 2021 when Oxy became aware of the leak; it was determined that the volume reported for July 12, 2021 should have been 259 mscf instead of the 303 mscf initially reported. Therefore, we have contacted The Division to amend that initial C-129 submittal.

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

Oxy became aware of a potential leak detected in the middle of a remote field on July 12, 2021. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, on July 13, 2021, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.

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

The leak was verified and stopped on July 13, 2021. The next day, on July 14, 2021, the damaged gas line was repaired.

The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.

**District I**1625 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 51388

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 51388
	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	[30-015-35296] PURE GOLD A FEDERAL #008
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	Yes
Is this considered a submission for a venting and/or flaring 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 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	Flow Line - Production
Additional details for Equipment Involved. Please specify	gas flowline

**Representative Compositional Analysis of Vented or Flared Natural Gas**

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

Methane (CH4) percentage	69
Nitrogen (N2) percentage, if greater than one percent	5
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	06/19/2021
Time venting and/or flaring was discovered or commenced	12:00 AM
Time venting and/or flaring was terminated	11:59 PM
Cumulative hours during this event	24

**Measured or Estimated Volume of Vented or Flared Natural Gas**

Natural Gas Vented (Mcf) Details	Cause: Equipment Failure   Flow Line - Production   Natural Gas Vented   Released: 241 Mcf   Recovered: 0 Mcf   Lost: 241 Mcf
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Natural Gas Flared (Mcf) Details	Not answered.
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)	<b>Yes, according to supplied volumes this appears to be a "gas only" report.</b>

**Venting or Flaring Resulting from Downstream Activity**

Was or is this venting and/or flaring a result of downstream activity	Not answered.
Was notification of downstream activity received by you or your operator	Not answered.
Downstream OGRID that should have notified you or your operator	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	The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.
Steps taken to limit the duration and magnitude of venting and/or flaring	Oxy became aware of a potential leak detected in the middle of a remote field on July 12, 2021. The potential leak was geographically removed from wells and tank batteries, but somewhat within the vicinity of Oxy's operations. Within 24 hours, on July 13, 2021, an Oxy field crew was deployed to the remote area to search for the potential leak. A rip on the seam was detected in a surface gas line. Upon verification of the leak, Oxy immediately shut-in producing wells to stop the leak. The damaged gas line was repaired the next day on July 14, 2021.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	The leak was verified and stopped on July 13, 2021. The next day, on July 14, 2021, the damaged gas line was repaired. The leak was caused by a longitudinal seam failure on a gas line. The type of damage on this type of gas line is not a common occurrence and was not anticipated. We believe the leak was a sudden, unavoidable failure beyond Oxy's reasonable control. While this type of seam failure on this type of line is infrequent, Oxy has initiated a root cause analysis to determine why the leak may have occurred and how Oxy can prevent this type of event from happening in the future.

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CONDITIONS

Action 51388

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 51388
	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.	9/23/2021