Certificate of Analysis

Number: 6030-21050216-004A

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

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

May 25, 2021

Field:	Turkey	Sampled By:	Michael Mirabal
Station Name:	Turkey Track CTB Check B	Sample Of:	Gas Spot
Station Number:	14670B	Sample Date:	05/20/2021 10:47
Station Location:	CTB	Sample Conditions:	79 psia, @ 82 °F Ambient: 75 °F
Sample Point:	Meter	Effective Date:	05/20/2021 10:47
Formation:	Spot	Method:	GPA-2261M
County:	Eddy	Cylinder No:	5030-00537
Type of Sample: :	Spot-Cylinder	Instrument:	6030_GC6 (Inficon GC-3000 Micro)
Heat Trace Used:	N/A	Last Inst. Cal.:	05/03/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	05/25/2021 07:28:39 by KNF
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+	5.984
Nitrogen	2.015	2.042	2.652		GPM TOTAL C3+	2.878
Methane	75.693	76.715	57.062		GPM TOTAL iC5+	0.649
Carbon Dioxide	0.232	0.235	0.480			
Ethane	11.483	11.638	16.226	3.106		
Propane	5.288	5.359	10.957	1.473		
Iso-butane	0.679	0.688	1.854	0.225		
n-Butane	1.667	1.689	4.552	0.531		
Iso-pentane	0.421	0.427	1.428	0.156		
n-Pentane	0.431	0.437	1.462	0.158		
Hexanes Plus	0.760	0.770	3.327	0.335		
	98.669	100.000	100.000	5.984		

Calculated Physical Properties	**Total**	**C6+**
Relative Density Real Gas	0.7472	3.2176
Calculated Molecular Weight	21.57	93.19
Compressibility Factor	0.9963	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1268	5113
Water Sat. Gas Base BTU	1246	5024
Ideal, Gross HV - Dry at 14.65 psia	1263.2	5113.2
Ideal, Gross HV - Wet	1241.1	5023.7
Net BTU Dry Gas - real gas	1151	
Net BTU Wet Gas - real gas	1131	

Comments: H2S Field Content 0 ppm
Mcf/day 19263

Report generated by:

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

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Turkey Track CTB

Flare Date: 11/04/2021

Duration of event: 43 Minutes

MCF Flared: 130

Start Time: 06:47 AM

End Time: 07:30 AM

Cause: Compressor Malfunction > Low Oil Pressure Alarm

Method of Flared Gas Measurement: Gas Flare Meter

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 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 engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program.

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

In this case, the facility's sales gas compressor unit # 2 automatically shut down on a low oil pressure alarm. Notwithstanding compressor station design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. In this case, the low oil pressure malfunction alarm in compressor unit # 2 could not have been foreseen, avoided, or planned for as malfunctions can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc., yet as it pertains to this event, there were no chronicled issues on the compressor panel, to indicate why the low-pressure malfunction alarm triggered the compressor unit to automatically shut down. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. USA gas sales compressor unit # 2 was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor unit. This incident 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 during this event by working safely and diligently during this event.

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

It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown alarms, increased sensor pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause.

In this case, the facility's sales gas compressor unit # 2 automatically shut down on a low oil pressure alarm. Notwithstanding compressor station design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. In this case, the low oil pressure malfunction alarm in compressor unit # 2 could not have been foreseen, avoided, or planned for as malfunctions can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc., yet as it pertains to this event, there were no chronicled issues on the compressor panel, to indicate why the low-pressure malfunction alarm triggered the compressor unit to automatically shut down. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. USA gas sales compressor unit # 2 was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor unit.

Once the production tech received the compressor malfunction alarm and arrived on-site, he immediately began to inspect the gas compressor unit. Finding no other cause for the malfunction, the production tech was able to clear the malfunction alarm and restart the gas compressor unit, which shortly thereafter, once the gas compressor reached its optimized working operation and speed, did flaring cease. The production tech stayed on-site for a short period of time to monitor the gas compressor unit to ensure no further incidents occurred. OXY made every effort to control and minimize emissions as much as possible during this event by working safely and diligently to resolve the issues.

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

Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas lift compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. 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 strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this unit.

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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 65272

QUESTIONS

Operator: OXY USA WTP LIMITED PARTNERSHIP P.O. Box 4294 Houston, TX 772104294	OGRID: 192463
	Action Number: 65272
	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	**[fAPP2126265645] TURKEY TRACK 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	No
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	*Not answered.*
Additional details for Equipment Involved. Please specify	Emergency Flare > Compressor Malfunction > Low Oil Pressure Alarm

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	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	0
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	11/04/2021
Time venting and/or flaring was discovered or commenced	06:47 AM
Time venting and/or flaring was terminated	07:30 AM
Cumulative hours 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 | Released: 130 Mcf | Recovered: 0 Mcf | Lost: 130 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	No
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	In this case, the facility's sales gas compressor unit # 2 automatically shut down on a low oil pressure alarm. Notwithstanding compressor station design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. In this case, the low oil pressure malfunction alarm in compressor unit # 2 could not have been foreseen, avoided, or planned for as malfunctions can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc., yet as it pertains to this event, there were no chronicled issues on the compressor panel, to indicate why the low-pressure malfunction alarm triggered the compressor unit to automatically shut down. With the gas compressor down, there was no gas takeaway, and thus field psi increased until set psi levels were reached which triggered flaring, as a safety measure for operations, facility equipment, and personnel. USA gas sales compressor unit # 2 was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor unit. This incident 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 during this event by working safely and diligently during this event.
Steps taken to limit the duration and magnitude of venting and/or flaring	It is OXY's policy to route its stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring which in turn are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown alarms, increased sensor pressure alarms, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. In this case, the facility's sales gas compressor unit # 2 automatically shut down on a low oil pressure alarm. Notwithstanding compressor station design and operation, compressors are inherently dynamic and even the smallest alarms, false or true, can be sudden, reasonably unforeseeable, and unexpected which can cause compression malfunctions to occur. In this case, the low oil pressure malfunction alarm in compressor unit # 2 could not have been foreseen, avoided, or planned for as malfunctions can be caused by any number of things, such as fuel quality change, temperature changes, psi changes, oil issues, plugs and valves failing, etc., yet as it pertains to this event, there were no chronicled issues on the compressor panel, to indicate why the low-pressure malfunction alarm triggered the compressor unit to automatically shut down.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding proper gas lift compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable, and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. 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 strong and positive compression equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this unit.

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CONDITIONS

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	Action Number: 65272
	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.	12/6/2021