

Atchafalaya Measurement Inc
416 East Main Street, Artesia NM 88210 575-746-3481

Sample Information

	Sample Information
Sample Name	OXY__Burton Flats CTB Production__GC2-73019-12
Station Number	14071P
Lease Name	Burton Flats CTB Production
Analysis For	OXY USA
Producer	OXY USA
Field Name	Burton Flats
County/State	N/A
Frequency/Spot Sample	Spot
Sampling Method	Fill Empty
Sample Deg F	97
Atmos Deg F	79
Flow Rate	153.142
Line PSIG	48
Date Sampled/Time Sampled	7-23-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Derek Sauder
Analysis By	Pat Silvas
Verified/Calibrated Date	7-29-19
Report Date	2019-07-30 10:46:10

Component Results

Component Name	Ret. Time	Peak Area	Norm%	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	23.100	30269.9	2.1819	0.000
H2S	0.000	0.0	0.0000	0.000
Methane	23.860	787502.9	75.1296	0.000
Carbon Dioxide	27.900	5825.9	0.3597	0.000
Ethane	36.960	202456.6	11.6915	3.121
Propane	77.160	133263.6	5.8157	1.600
i-Butane	29.820	64807.6	0.7713	0.252
n-Butane	32.080	165504.2	1.9549	0.615
i-Pentane	39.120	49926.9	0.5126	0.187
n-Pentane	41.900	54913.2	0.5487	0.199
C6's	50.750	43911.0	0.3860	0.158
C7's	67.000	54984.0	0.4654	0.214
C8's	84.000	18044.0	0.1628	0.083
C9's	102.000	4888.0	0.0159	0.009
C10 Plus	146.000	1090.0	0.0040	0.002
Total:			100.0000	6.441

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	103.9585	
Pressure Base (psia)	14.650	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1294.9	1272.2
Gross Heating Value (BTU / Real cu.ft.)	1300.1	1277.9
Relative Density (G), Ideal	0.7687	0.7661
Relative Density (G), Real	0.7715	0.7692
Compressibility (Z) Factor	0.9960	0.9956

EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Burton Flats CTB**Start Date:** 05/30/2021 @ 02:00 PM**End Date:** 05/30/2021 @ 04:00 PM**Cause:** Sudden and unexpected compressor malfunction due to broken valves on second interstage**Duration of event:** 2 hours**Method of Flared Gas Measurement:** Flare Meter

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

The 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. 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 is regularly monitored to ensure flame is lit and meeting opacity requirements. This event was a sudden and unforeseeable compressor malfunction of USA sales gas compressor #1 due to faulty and broken valves on the second interstage discharge of the compressor unit. Oxy production techs were alerted to a malfunction of the compressor unit when the high 2nd interstage pressure alarm started going off indicating an increasing pressure rising and a malfunction of the unit. As this unit was recently troubleshot the day before by a USA Compression compressor mechanic, Oxy production techs quickly contacted the compressor unit owner, USA Compression, to immediately send out a compressor mechanic, as the 2 interstage pressure was rising and a malfunction alarm was occurring. A USA compression mechanic quickly arrived at the facility and began to immediately inspect the unit and reading the alarm pressures. USA compression mechanic determined that the compressor unit would need to be shut down so that he could perform a thorough inspection of the unit to determine exact cause involving the rising 2nd interstage pressure malfunction alarms. OXY production techs assisted with shutting down the unit, and this shut down of the malfunctioning compressor unit triggered a flaring event. After thoroughly inspecting the compressor unit, USA compressor mechanic determined the cause of the 2nd interstage pressure malfunction was due to faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs. USA compressor mechanic replaced the faulty and broken valves on the 2nd interstage and inspected the compressor unit thoroughly for any other possible reasons the compressor unit might be getting high interstage pressure. After inspecting and troubleshooting the compressor unit, the compressor mechanic brought the unit back to normal working service. OXY personnel were in place and available at the facility location when compressor unit was returned to working service. Notwithstanding proper gas 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. 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:

The 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. 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 is regularly monitored to 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 respond to the compression equipment malfunction alarms by quickly contacting the compressor unit owner, USA Compression, to immediately send out a compressor mechanic, as the 2 interstage pressure on the compressor unit was rising and a malfunction alarm was occurring. A USA compression mechanic quickly arrived at the facility and began to immediately inspect the unit and reading the alarm pressures. USA compression mechanic determined that the compressor unit would need to be shut down so that he could perform a thorough inspection of the unit to determine exact cause involving the rising 2nd interstage pressure alarms. OXY production techs assisted with shutting down the unit, and this shut down of the malfunctioning compressor unit triggered a flaring event. In addition to shutting USA sales gas compressor unit # 1, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to ensure the flame is lit and meeting opacity requirements. After thoroughly inspecting the malfunctioning compressor unit, USA compressor mechanic determined the cause of the 2nd interstage pressure malfunction was due to faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs. USA compressor mechanic replaced the faulty and broken valves on the 2nd interstage and inspected the compressor unit thoroughly for any other possible reasons the compressor unit might be getting high interstage pressure. After inspecting and troubleshooting the compressor unit, the compressor mechanic brought the unit back to normal working service. Notwithstanding proper gas 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. 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 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. 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 is regularly monitored to ensure the flame is lit and meeting opacity requirements. Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas 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. USA sales gas compressor unit # 1 was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor unit. Oxy has a strong and positive compression equipment preventative maintenance program in place. This incident was completely out of OXY's control to prevent from happening as it was determined the malfunction occurred due to a faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs. OXY made every effort to control and minimize emissions as much as possible during this event. 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.

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 33372

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 33372
	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 additional 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 19.13.297 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 occurring at a facility that does not have an Facility ID (##) yet.

Facility or Site Name	Burton Flats CTB
Facility Type	Tank Battery - (TB)

Equipment Involved

Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare, sudden and unexpected compressor malfunction due to broken valves on second interstage

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	2
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 or flaring was discovered or commenced	05/30/2021
Time venting or flaring was discovered or commenced	02:00 PM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	05/30/2021
Time venting or flaring was terminated	04:00 PM
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	2

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure Other (Specify) Natural Gas Flared Spilled: 110 Mcf Recovered: 0 Mcf Lost: 110 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Emergency Flare Meter> Sudden and unexpected compressor malfunction due to broken valves on second interstage
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	No
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 > This event was a sudden and unforeseeable compressor malfunction of USA sales gas compressor #1 due to faulty and broken valves on the second interstage discharge of the compressor unit. Oxy production techs were alerted to a malfunction of the compressor unit when the high 2nd interstage pressure alarm started going off indicating an increasing pressure rising and a malfunction of the unit. As this unit was recently troubleshot the day before by a USA Compression compressor mechanic, Oxy production techs quickly contacted the compressor unit owner, USA Compression, to immediately send out a compressor mechanic, as the 2 interstage pressure was rising and a malfunction alarm was occurring. A USA compression mechanic quickly arrived at the facility and began to immediately inspect the unit and reading the alarm pressures. USA compression mechanic determined that the compressor unit would need to be shut down so that he could perform a thorough inspection of the unit to determine exact cause involving the rising 2nd interstage pressure malfunction alarms. OXY production techs assisted with shutting down the unit, and this shut down of the malfunctioning compressor unit triggered a flaring event. After thoroughly inspecting the compressor unit, USA compressor mechanic determined the cause of the 2nd interstage pressure malfunction was due to faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs.
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 respond to the compression equipment malfunction alarms by quickly contacting the compressor unit owner, USA Compression, to immediately send out a compressor mechanic, as the 2 interstage pressure on the compressor unit was rising and a malfunction alarm was occurring. A USA compression mechanic quickly arrived at the facility and began to immediately inspect the unit and reading the alarm pressures. USA compression mechanic determined that the compressor unit would need to be shut down so that he could perform a thorough inspection of the unit to determine exact cause involving the rising 2nd interstage pressure alarms. OXY production techs assisted with shutting down the unit, and this shut down of the malfunctioning compressor unit triggered a flaring event. In addition to shutting USA sales gas compressor unit # 1, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to ensure the flame is lit and meeting opacity requirements. After thoroughly inspecting the malfunctioning compressor unit, USA compressor mechanic determined the cause of the 2nd interstage pressure malfunction was due to faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs. USA compressor mechanic replaced the faulty and broken valves on the 2nd interstage and inspected the compressor unit thoroughly for any other possible reasons the compressor unit might be getting high interstage pressure. After inspecting and troubleshooting the compressor unit, the compressor mechanic brought the unit back to normal working service.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	See Justification Form > Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas 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. USA sales gas compressor unit # 1 was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor unit. Oxy has a strong and positive compression equipment preventative maintenance program in place. This incident was completely out of OXY's control to prevent from happening as it was determined the malfunction occurred due to a faulty and broken valves. Valves can become faulty and broken suddenly and without warning, regardless of good preventative maintenance practices and programs. OXY made every effort to control and minimize emissions as much as possible during this event. 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

Action 33372

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Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 33372
	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.	6/23/2021