

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

### Sample Information

	Sample Information
Sample Name	OXY__Bone Spring 16H__6030GC4-12720-31
Station Number	15508T
Lease Name	Bone Spring 16H
Analysis For	OXY USA
Producer	OXY USA
Field Name	NMS
County/State	Lea,NM
Frequency/Spot Sample	Monthly
Sampling Method	Fill Empty
Sample Deg F	50
Atmos Deg F	45
Flow Rate	1404.2554
Line PSIG	112
Date Sampled/Time Sampled	1-21-20
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Victor Urias
Analysis By	Pat Silvas
Verified/Calibrated Date	1-27-20
Report Date	2020-01-27 15:16:05

### Component Results

Component Name	Ret. Time	Peak Area	Norm%	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	23.320	21949.5	1.6779	0.000	
H2S	0.000	0.0	0.0000	0.000	
Methane	24.080	780277.1	75.4574	0.000	
Carbon Dioxide	28.180	22708.5	1.4265	0.000	
Ethane	36.980	206051.2	11.9540	3.191	
Propane	76.880	134200.1	6.0333	1.659	
i-Butane	29.780	63879.5	0.8035	0.262	
n-Butane	32.040	139058.0	1.7325	0.545	
i-Pentane	39.040	27615.0	0.3084	0.113	
n-Pentane	41.820	28179.1	0.3036	0.110	
C6's	50.750	14674.0	0.1428	0.059	
C7's	67.000	12473.0	0.1028	0.047	
C8's	84.000	4377.0	0.0424	0.022	
C9's	102.000	1215.0	0.0053	0.003	
C10 Plus	146.000	1176.0	0.0096	0.006	
Total:			100.0000	6.016	

### Results Summary

Result	Dry	Sat. (Base)	
Total Raw Mole% (Dry)	97.6603		
Pressure Base (psia)	14.650		
Temperature Base	60.00		
Gross Heating Value (BTU / Ideal cu.ft.)	1244.9	1223.1	
Gross Heating Value (BTU / Real cu.ft.)	1249.5	1228.2	
Net Heating Value (BTU / Ideal cu.ft.)	1129.8	1110.1	
Net Heating Value (BTU / Real cu.ft.)	1134.0	1114.6	
Relative Density (G), Ideal	0.7481	0.7459	
Relative Density (G), Real	0.7506	0.7487	
Compressibility (Z) Factor	0.9963	0.9959	



# OXY USA INC.

Event ID: 112780

Reporting Employee:

Lease Name: Mesa Verde 18 CTB

Account Number:

Equipment: 7/8/19 - Meter 15500 (Entered 7/18/2019)

NSR Permit Number:

EPN: FL-1

Title V Permit Number:

EPN Name Emergency Flare

Reg Lease Number:

Flare Point: Flare 1

## Explanation of the Cause:

FLARING EVENT DUE TO POWER OUTAGE

## Event Type

Malfunction  
Malfunction  
Malfunction

## Corrective Actions Taken to Minimize Emissions:

N/A

## Actions taken to prevent recurrence:

We are flaring our gas to limit emissions until the issue is resolved. The emissions were caused by the sudden, 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 maintenance practices.

Emission Start Date	Emission End Date	Duration
5/24/2021 7:30:00 PM	5/25/2021 6:30:00 AM	11:00 hh:mm

## NMED

Pollutant	Duration (hh:mm)	Avging Period	Excess Emission	Number of Exceedances	Permit Limit	Average Emission Rate	Total Pounds	Tons Per Year		
								Total	Next Drop off Date	Date Permit Exceeded
CO	11:00	1	0 LBS	0	UnDefined	26.87 LBS/HR	295.66	0.147833	5/26/2021	
H2S	11:00	1	0 LBS	0	UnDefined	0 LBS/HR	0	0		
NOX	11:00	1	0 LBS	0	UnDefined	13.46 LBS/HR	148.1	0.074051	5/26/2021	
SO2	11:00	1	0 LBS	0	UnDefined	0 LBS/HR	0	0		
VOC	11:00	1	0 LBS	0	UnDefined	23.76 LBS/HR	261.39	0.130697	5/26/2021	

Reporting Status: Non-Reportable

## NMOCD

Flare Stream Total	Total MCF	EPN	Latitude	Longitude	Reporting Status
919 MCF	919 MCF	Emergency Flare			Major Release

## LEPC

Total MCF	H2S %	Unit Letter	Section	Township	Range
919	0				

## Emissions Calculations:

$$\text{NOx} = \text{MCF flared} \times \text{NOx factor from RG-109} \times \text{BTU/scf} \times 1000 \text{ scf/MCF} \times \text{MMBTU/1000000 BTU}$$

$$\text{CO} = \text{MCF flared} \times \text{CO factor from RG-109} \times \text{BTU/scf} \times 1000 \text{ scf/MCF} \times \text{MMBTU/1000000 BTU}$$

Gas was flared to reduce the hydrocarbon and/or H2S emissions to the atmosphere.

$$\text{NMNE NG} = \text{MCF flared} \times 50 \text{ lb/mole} \times \text{mole/.379 MCF} \times \text{mol \% NMNE NG} \times 0.02$$

$$\text{NMNE NG \%} = 100\% - \text{Methane \%} - \text{Ethane \%} - \text{Carbon Dioxide \%} - \text{Nitrogen \%}$$

$$\text{H2S} = \text{MCF flared} \times 34 \text{ lb/mole} \times \text{mole/.379 MCF} \times \text{mol \% H2S/100} \times 0.02$$

$$\text{SO2} = \text{MCF flared} \times 64 \text{ lb/mole} \times \text{mole/.379 MCF} \times \text{mol \% H2S/100} \times 0.98$$

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-129  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

NFO Permit No. \_\_\_\_\_  
(For Division Use Only)

## APPLICATION FOR EXCEPTION TO NO-FLARE RULE 19.15.18.12

(See Rule 19.15.18.12 NMAC and Rule 19.15.7.37 NMAC)

- A. Applicant OXY USA, Inc.,  
whose address is 5 Greenway Plaza, Suite 110, Houston, Texas 77046,  
hereby requests an exception to Rule 19.15.18.12 for 90 days or until  
\_\_\_\_\_, Yr \_\_\_\_\_, for the following described tank battery (or LACT):  
Name of Lease Mesa Verde 18 CTB Name of Pool \_\_\_\_\_  
Location of Battery: Unit Letter K Section 13 Township 24S Range 31E  
Number of wells producing into battery 33
- B. Based upon oil production of 19,500 barrels per day, the estimated \* volume  
of gas to be flared is 70 MCF; Value \_\_\_\_\_ per day.
- C. Name and location of nearest gas gathering facility:  
\_\_\_\_\_
- D. Distance \_\_\_\_\_ Estimated cost of connection \_\_\_\_\_
- E. This exception is requested for the following reasons: \_\_\_\_\_

The emissions event was caused by the sudden, 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 maintenance practices.

### OPERATOR

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature \_\_\_\_\_

Printed Name Maria T. Luna  
& Title Environmental Compliance

E-mail Address maria\_luna@oxy.com

Date \_\_\_\_\_ Telephone No. (713) 513-6640

### OIL CONSERVATION DIVISION

Approved Until \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

\* Gas-Oil ratio test may be required to verify estimated gas volume.

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**District III**

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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 29505

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 29505
	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	Yes
Is this considered a submission for a notification of a major venting or flaring	Yes, major venting or flaring of natural gas.
<b>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.</b>	
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	Not answered.
Facility Type	Not answered.

**Equipment Involved**

Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare

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

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

Methane (CH4) percentage	24
Nitrogen (N2) percentage, if greater than one percent	23
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	28
Oxygen (O2) percentage, if greater than one percent	0
<b>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</b>	
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	05/24/2021
Time venting or flaring was discovered or commenced	07:30 PM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	05/25/2021
Time venting or flaring was terminated	06:30 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	11
Longest duration of cumulative hours within any 24-hour period during this event	11

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

Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Power Failure   Other (Specify)   Natural Gas Flared   Spilled: 919 Mcf   Recovered: 0 Mcf   Lost: 919 Mcf ]
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 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	The emissions event was caused by the sudden, 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 maintenance practices. This emergency flaring event was caused by a power outage which forced operations to send all sales gas to the emergency flare onsite. Immediately after operations was made aware of the power outage, all gas at this facility was routed to the emergency flare, which is capable of achieving 98% combustion efficiency, greatly reducing emissions. The duration of the event was minimized by resuming normal operations as soon as the facility received power and was able to continue operations.
Steps taken to limit the duration and magnitude of venting or flaring	The emissions event was caused by the sudden, 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 maintenance practices. This emergency flaring event was caused by a power outage which forced operations to send all sales gas to the emergency flare onsite. Immediately after operations was made aware of the power outage, all gas at this facility was routed to the emergency flare, which is capable of achieving 98% combustion efficiency, greatly reducing emissions. The duration of the event was minimized by resuming normal operations as soon as the facility received power and was able to continue operations.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	The emissions event was caused by the sudden, 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 maintenance practices. This emergency flaring event was caused by a power outage which forced operations to send all sales gas to the emergency flare onsite. Immediately after operations was made aware of the power outage, all gas at this facility was routed to the emergency flare, which is capable of achieving 98% combustion efficiency, greatly reducing emissions. The duration of the event was minimized by resuming normal operations as soon as the facility received power and was able to continue operations.

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CONDITIONS  
  
Action 29505

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 29505
	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.	5/25/2021