

OXY USA Inc.

Salt Flat CTB

March 2019

# **Mass Fraction Conversion** **Produced Water Tank Flash - Speciation**

Basis: 1 lb-mol

| Component                                                | Mol %   | MW<br>(lb/lb-mol) | Fraction*MW<br>(lb/lb-mol) | Wt %    | Component<br>LHV<br>(Btu/scf) | Gas<br>LHV<br>(Btu/scf) |
|----------------------------------------------------------|---------|-------------------|----------------------------|---------|-------------------------------|-------------------------|
| Hydrogen Sulfide (H <sub>2</sub> S)                      | 0.0010  | 34.082            | 0.000341                   | 0.0009  | 586.8                         | 0.005868                |
| Nitrogen (N <sub>2</sub> )                               | 0.0000  | 28.0135           | 0.000000                   | 0.0000  | 0                             | 0                       |
| Carbon Dioxide (CO <sub>2</sub> )                        | 0.8064  | 44.01             | 0.354897                   | 0.8859  | 0                             | 0                       |
| Methane (CH <sub>4</sub> )                               | 28.5294 | 16.042            | 4.576686                   | 11.4245 | 909.4                         | 259                     |
| Ethane (C <sub>2</sub> H <sub>6</sub> )                  | 19.2969 | 30.069            | 5.802385                   | 14.4841 | 1618.7                        | 312                     |
| Propane (C <sub>3</sub> H <sub>8</sub> )                 | 22.9380 | 44.096            | 10.114740                  | 25.2488 | 2314.9                        | 531                     |
| IsoButane (i-C <sub>4</sub> H <sub>10</sub> )            | 6.8480  | 58.122            | 3.980195                   | 9.9355  | 3000.4                        | 205                     |
| N-Butane (n-C <sub>4</sub> H <sub>10</sub> )             | 9.4937  | 58.122            | 5.517928                   | 13.7740 | 3010.8                        | 286                     |
| IsoPentane (i-C <sub>5</sub> H <sub>12</sub> )           | 4.2778  | 72.149            | 3.086390                   | 7.7044  | 3699                          | 158                     |
| N-Pentane (n-C <sub>5</sub> H <sub>12</sub> )            | 2.9643  | 72.149            | 2.138713                   | 5.3387  | 3706.9                        | 110                     |
| Other Hexanes                                            | 1.5739  | 86.175            | 1.356308                   | 3.3857  | 4403.8                        | 69.31                   |
| Heptanes (C <sub>7</sub> H <sub>16</sub> )               | 1.0383  | 100.202           | 1.040397                   | 2.5971  | 5100                          | 52.95                   |
| Octanes +                                                | 0.5433  | 114.229           | 0.620606                   | 1.5492  | 5796                          | 31.49                   |
| n-Hexane (n-C <sub>6</sub> H <sub>14</sub> )             | 1.1446  | 86.175            | 0.986359                   | 2.4622  | 5100                          | 58.37                   |
| 2,2,4 Trimethylpentane (C <sub>8</sub> H <sub>18</sub> ) | 0.0000  | 114.229           | 0.000000                   | 0.0000  | 5778.8                        | 0                       |
| Benzene (C <sub>6</sub> H <sub>6</sub> )                 | 0.2055  | 78.112            | 0.160520                   | 0.4007  | 3590.9                        | 7.38                    |
| Toluene (C <sub>7</sub> H <sub>8</sub> )                 | 0.2612  | 92.138            | 0.240664                   | 0.6008  | 4273.7                        | 11.16                   |
| Ethylbenzene (C <sub>8</sub> H <sub>10</sub> )           | 0.0078  | 106.165           | 0.008281                   | 0.0207  | 4970.4                        | 0.3877                  |
| Xylenes (C <sub>8</sub> H <sub>10</sub> )                | 0.0709  | 106.165           | 0.075271                   | 0.1879  | 4958.1                        | 3.52                    |
| Water (H <sub>2</sub> O)                                 | 0.0000  | 18.02             | 0.000000                   | 0.0000  | 0                             | 0                       |
| TOTAL (less H <sub>2</sub> S)                            | 100.0   |                   | 40.06                      | 100.0   | --                            | 2096                    |

E&amp;P Tanks Water Run Flash Gas - SW Region Case No. 26 - 10 ppmv Hydrogen Sulfide added.

|           |        |
|-----------|--------|
| Total HC  | 99.114 |
| Total VOC | 73.206 |
| Total HAP | 3.672  |

**VCU FLARING EVENT SPECIFIC JUSTIFICATIONS FORM****Facility:** Salt Flat CTB and OGS**Date:** 09/30/2021**Duration of event:** >8 hours/day**MCF Flared:** 50.6**Start Time:** 12:00 AM**End Time:** 11:59 PM**Cause:** Routine Combustion of storage tank vapors using an enclosed combustion device (VCU)**Method of Flared Gas Measurement:** VCU Meter tracking combusted gas**Well API Associated with Facility:** 30-015-45080 Salt Flat CC 20 29 Federal Com #031H

**Comments:** No wells were involved with this flaring event as this event is due to combustion of storage tank vapors by an enclosed combustion device which is used routinely at this facility, pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%.

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

On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%.

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

On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%.

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

On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%.

**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 55596

**QUESTIONS**

|                                                                    |                |
|--------------------------------------------------------------------|----------------|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:         |
|                                                                    | 16696          |
|                                                                    | Action Number: |
|                                                                    | 55596          |
| 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 | [fAPP2126563666] SALT FLAT CTB |

**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                                                                                                                                                                                                                  | No                                                |
| 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                                | Other (Specify)                                                                                                                                                                                                                                                                                                                                                                                  |
| Additional details for Equipment Involved. Please specify | VCU Meter tracking combusted gas- No wells were involved with this flaring event as this event is due to combustion of storage tank vapors by an enclosed combustion device which is used routinely at this facility, pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95% |

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

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

|                                                              |    |
|--------------------------------------------------------------|----|
| Methane (CH4) percentage                                     | 29 |
| Nitrogen (N2) percentage, if greater than one percent        | 0  |
| Hydrogen Sulfide (H2S) PPM, rounded up                       | 10 |
| Carbon Dioxide (CO2) percentage, if greater than one percent | 1  |
| 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 | 09/30/2021 |
| 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                                          | Not answered.                                                                                              |
| Natural Gas Flared (Mcf) Details                                          | Cause: Other   Other (Specify)   Natural Gas Flared   Released: 51 Mcf   Recovered: 0 Mcf   Lost: 51 Mcf ] |
| Other Released Details                                                    | Not answered.                                                                                              |
| Additional details for Measured or Estimated Volume(s). Please specify    | VCU Meter tracking combusted gas                                                                           |
| 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                                                    | On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%. |
| Steps taken to limit the duration and magnitude of venting and/or flaring                                                      | On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%. |
| Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring                                     | On May 17, 2021, NMOCD issued a notice entitled, "Frequently Asked Questions Regarding the Natural Gas Waste Rules," and states that "... pursuant to 19.15.27.8(G) NMAC, an operator who vents or flares for any reason and that lasts more than 8 hours cumulatively during any 24-hour period must report that event on Form C-129." Combustion of storage tank vapors by this enclosed combustion device is used routinely at this facility pursuant to Federal US EPA NSPS OOOO/OOOOa regulations and state air permitting requirements that require the use of such a device to reduce storage tank emissions by 95%. |

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CONDITIONS  
  
Action 55596

CONDITIONS

|                                                                    |                                                        |
|--------------------------------------------------------------------|--------------------------------------------------------|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696                                        |
|                                                                    | Action Number:<br>55596                                |
|                                                                    | Action Type:<br>[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. | 10/13/2021     |