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 Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

### GAS CAPTURE PLAN

Date: 9-8-18

X Original

Amended - Reason for Amendment:

Operator & OGRID No.: Percussion Petroleum Operating, LLC (371755)

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

## Well(s)/Production Facility - Name of facility

The well(s) that will be located at the production facility are shown in the table below.

| Well Name                   | API     | SHL<br>(ULSTR) | SHL<br>Footages         | Expected MCF/D | Flare or Vent | Comments                                |
|-----------------------------|---------|----------------|-------------------------|----------------|---------------|---|
| Lakewood Federal<br>Com 12H | 30-015- | C-3-20s-25e    | 755' FNL &<br>1820' FWL | 100            | <30 days      | flare until well clean,<br>then connect |
| Lakewood Federal<br>Com 13H | 30-015- | C-3-20s-25e    | 775' FNL &<br>1820' FWL | 100            | <30 days      | flare until well clean,<br>then connect |

### **Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is not yet dedicated, but will be connected to a 3<sup>rd</sup> party gathering system located in <u>Eddy</u> County, New Mexico. It will require an unknown length of pipeline to connect the facility to a gathering system. <u>Percussion</u> will provide (periodically) to <u>Gas Transporter</u> a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, <u>Percussion</u> and <u>Gas Transporter</u> will have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at <u>an unknown</u> Processing Plant located in <u>Eddy</u> County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

#### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on <u>Gas Transporter</u> system at that time. Based on current information, it is Percussion's belief a system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

## **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

APD ID: 10400035089

Submission Date: 10/11/2018

Highlighted data reflects the most

Operator Name: PERCUSSION PETROLEUM OPERATING LLC

recent changes

Well Name: LAKEWOOD FEDERAL COM

Well Number: 12H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

## **Section 1 - Geologic Formations**

| Formation ID | Formation Name | Elevation | True Vertical<br>Depth | Measured<br>Depth | Lithologies     | Mineral Resources | Producing<br>Formation |
|--------------|----------------|-----------|------------------------|-------------------|-----------------|-------------------|------------------------|
| 1 .          | QUATERNARY     | 3503      | 0                      | Ö                 | OTHER : Caliche | USEABLE WATER     | No                     |
| 2            | GRAYBURG       | 2870      | 633                    | 633               | DOLOMITE        | NATURAL GAS,OIL   | No                     |
| 3            | SAN ANDRES     | 2685      | 818                    | 818               | DOLOMITE        | NATURAL GAS,OIL   | No                     |
| 4            | GLORIETA       | 1125      | 2378                   | 2390              | DOLOMITE        | NATURAL GAS,OIL   | No                     |
| 5            | YESO           | 911       | 2592                   | 8403              | DOLOMITE        | NATURAL GAS,OIL   | Yes                    |

### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 3M

Rating Depth: 5000

Equipment: A 3000-psi 5000' rated BOP stack consisting of annular preventer and double (blind and pipe) ram will be used below surface casing to TD.

Requesting Variance? NO

### Variance request:

Testing Procedure: Pressure tests will be conducted before drilling out from under all casing strings. Third party test crews will conduct all tests. All tests will be recorded for 10-minutes on low pressure (500 psi) and 10-minutes on high pressure (3000-psi). After BOP testing is complete, test casing (without test plug) to 2000-psi for 30 minutes. All tests will be charted on a plot. BOPs will be function tested every day.

### **Choke Diagram Attachment:**

Lake 12H\_Choke\_20181010122500.pdf

### **BOP Diagram Attachment:**

Lake\_12H\_BOP\_20181010122510.pdf