

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

☒ Original

☐ Amended

NM OIL CONSERVATION
ARTESIA DISTRICT

Date: 10/10/2017

Reason for Amendment:

APR 26 2018

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

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

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 | Well Location (ULSTR) | Footages | Expected MCF/D | Flared or Vented | Comments |
|----------------------|--------------|------------------------|---------------------|----------------|------------------|----------|
| Gissler Federal #16H | 30-015-44913 | UL-I Sec 6, T17S, R30E | 1550 FSL 170 FEL | 520 | 0 | |
| | | | | | | |

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 dedicated to **DCP Midstream** and will be connected to **DCP's** low/high pressure gathering system located in **Eddy County**, New Mexico. **NO additional pipeline** to connect the facility to low/high pressure gathering system **because it will go to an existing battery**. COG Operating LLC provides (periodically) to **DCP** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COG Operating LLC and **DCP** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **DCP'S Linam** Processing Plant located in **Sec. 6, T19S, R37E, Lea 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 **DCP's** system at that time. Based on current information, it is COG Operating LLC belief the 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
 - 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

Well: Gissler Federal #16H

| Hole Volumes | | | | | | |
|--------------|-----------------------|--------|-----------------------|-------|-------------|----------|
| Hole | Hole Section (Length) | Casing | Capacity (ft3/Lin.ft) | Cu.Ft | Total Cu.Ft | % Excess |
| Prod | 0-1250 (1250) | 7" | 0.1585 | 198.1 | 198.1 | 0 |
| Prod | 1250-4032 (2782) | 7" | 0.1503 | 418.1 | 418.1 | 224 |
| Prod | | | | | | |
| Prod | | | | | | |

| Cement Volumes | | | | | |
|----------------|--------------|-------|--------|--------|--------------|
| Blend | Cement Sacks | Yield | Weight | Volume | Total Volume |
| 35:65:6 | 500 | 2.01 | 12.5 | 1005 | 1553 |
| 50:50:02 | 400 | 1.37 | 14 | 548 | |

| % Excess Calculation | | | |
|----------------------|--------|--|------------|
| Total Volume | 1553 | | 1354.9 |
| Cu.Ft | -198.1 | | /418.1 |
| | 1354.9 | | 224%excess |

7" to be run from surface to kickoff point and changed over to 5 ½" with DV Tool and ECP at kickoff point. 5 ½" casing will be run from kickoff point to td and isolation packers set throughout curve and lateral. 7" to be cemented from kickoff point to surface.