State of New Mexico Energy, Minerals and Natural Resources Department

> 1220 South St. Francis Dr. OCD - HOBBS Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 9/12/2018

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Operator & OGRID No.: COG Operating LLC, OGRID 229137

09/26/2018

□ Amended - Reason for Amendment:

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	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Huckleberry State Com #503H		B-27-21S-33E	145' FNL & 2620' FEL	3,003		Will be contingent upon facilities plan and bottom location
	45233					and battery location

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 Versado, and will be connected to Monument low/high pressure gathering system located in Lea County, New Mexico. It will require an undetermined amount of feet of pipeline to connect the facility to low/high pressure gathering system. COG Operating LLC provides (periodically) to Versado 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 Versado have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Monument Processing Plant located in Sec 36-19S-R36E 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 Gas Transporter system at that time. Based on current information, it is Operator's 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