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

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JAN 22 2019

DISTRICT II-ARTESIA O.C.D.

**GAS CAPTURE PLAN**

Date: 8/27/2018

☒ Original  
☐ Amended - Reason for Amendment: \_\_\_\_\_

Devon & OGRID No.: Devon Energy Prod. Co., L.P. (6137)

This Gas Capture Plan outlines actions to be taken by the Devon to reduce well/production facility flaring/venting for new completion (new drill, recomple 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
Lusitano 27-34 Fed Com 716H		Unit A, Sec 27-T25S-R31E	235 FNL 1234 FEL			Lusitano 27 CTB 4
30-015-45657						

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if Enterprise system is in place. The gas produced from production facility is dedicated to Enterprise and will be connected to Enterprise low/high pressure gathering system located in Eddy County, New Mexico. It will require 450' of pipeline to connect the facility to low/high pressure gathering system. Devon provides (periodically) to Enterprise a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Devon and Enterprise have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise Processing Plant located in Sec. 36, Twn. 24S, Rng. 30E, Eddy 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 Enterprise system at that time. Based on current information, it is Devon'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

## Lusitano 27-34 Fed Com 716H

### 1. Geologic Formations

TVD of target	11798	Pilot hole depth	N/A
MD at TD:	22087	Deepest expected fresh water:	

#### Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	903		
Salado	1168		
Base of Salt	4268		
Delaware	4288		
L Brushy Canyon	8013		
Bone Spring	8238		
Leonard 'A'	8353		
Leonard 'B'	8753		
Leonard 'C'	9003		
1st BSPG Sand	9283		
2nd BSPG Lime	9683		
2nd BSPG Sand	9988		
L 2nd BSPG Sand	10308		
3rd BSPG Lime	10373		
3rd BSPG Sand	11173		
Wolfcamp	11638		
Wolfcamp 100	11798		

\*H<sub>2</sub>S, water flows, loss of circulation, abnormal pressures, etc.

### 2. Casing Program (Primary Design)

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
14.75"	0	928	10.75"	40.5	J-55	STC	1.125	1.25	1.6
9.875"	0	11240	7.625"	29.7	P110	BTC	1.125	1.25	1.6
8.75"	11240	12140				Flushmax III			
6.75"	0	TD	5.5"	20	P110	Vam SG	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h Must have table for contingency casing
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- Int casing shoe will be selected based on drilling data / gamma, setting depth with be revised accordingly if needed.
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.