

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

**NM OIL CONSERVATION**  
**ARTEZIA DISTRICT**

**GAS CAPTURE PLAN**

**NOV 28 2018**

Date: 12/01/2017

Original

Operator & OGRID No.: BOPCO, L.P. [260757]

**RECEIVED**

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, 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: JRU DI2 Battery**

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
James Ranch Unit DI 2 WCY-2W 272H		K-25-25S-30E	2600'FSL & 1960'FWL	2500 MCF/D	Flared/Sold	CTB Connected to P/L
	30-015-45466					

**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 ETC and will be connected to ETC low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. BOPCO, L.P. provides (periodically) to ETC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, BOPCO, L.P. and ETC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ETC's Processing Plant located in Sec. 33 Twn. 24S, Rng. 37E, 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 ETC's system at that time. Based on current information, it is BOPCO, L.P.'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



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well JAMES RANCH UNIT DI 2 WCY-2W 272H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 25' @ 3369.00usft (Unknown)
<b>Project:</b>	Eddy County, NM (NAD-27)	<b>MD Reference:</b>	RKB = 25' @ 3369.00usft (Unknown)
<b>Site:</b>	James Ranch Unit DI 2	<b>North Reference:</b>	Grid
<b>Well:</b>	JAMES RANCH UNIT DI 2 WCY-2W 272H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

**Design Targets**

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
JRU DI 2 WCY-2W 27 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	496,082.70	653,529.00	32.362866	-103.836105
JRU DI 2 WCY-2W 27 - plan misses target center by 0.05usft at 24408.93usft MD (11070.00 TVD, 1656.75 N, -14980.60 E) - Point	0.00	0.00	11,070.00	1,656.70	-14,980.60	497,739.40	638,548.40	32.367602	-103.884598
JRU DI 2 WCY-2W 27 - plan hits target center - Point	0.00	0.00	11,070.00	1,680.90	-2,303.80	497,763.60	651,225.20	32.367516	-103.843541
JRU DI 2 WCY-2W 27 - plan hits target center - Point	0.00	0.00	11,070.00	1,656.50	-15,110.60	497,739.20	638,418.40	32.367603	-103.885019

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
371.00	371.00	Rustler			
671.00	671.00	Salado			
3,645.25	3,602.00	Base Salt			
3,878.32	3,826.00	Delaware/Lamar			
3,919.94	3,866.00	Bell Canyon			
4,877.19	4,786.00	Cherry Canyon			
5,048.87	4,951.00	Base Manzanita			
6,521.17	6,366.00	Brushy Canyon			
7,608.48	7,411.00	Basal Brushy Canyon			
7,884.21	7,676.00	Base Brushy Canyon Sands			
7,910.22	7,701.00	Bone Spring			
8,014.27	7,801.00	Avalon Sand			
8,524.11	8,291.00	Lower Avalon Shale			
9,013.14	8,761.00	First Bone Spring Sand			
9,481.36	9,211.00	Second Bone Spring Shale/Limestone			
9,845.53	9,561.00	Second Bone Spring Sand			
10,032.82	9,741.00	Second Bone Spring B Sand			
10,147.27	9,851.00	Third Bone Spring Shale/Limestone			
10,886.02	10,561.00	Third Bone Spring Sand			
11,208.45	10,851.00	Third Bone Spring RH Sand			
11,357.48	10,954.00	Wolfcamp			
11,528.91	11,035.00	Wolfcamp Y Sand			