

Submit 1 Copy To Appropriate District  
Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-015-40247
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name POOH 27 STATE
8. Well Number 4
9. OGRID Number 157984
10. Pool name or Wildcat ARTESIA; GLORIETA-YESO (96830)

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator OCCIDENTAL PERMIAN LTD
3. Address of Operator PO BOX 4294; HOUSTON, TX 77210
4. Well Location Unit Letter <u>H</u> : <u>1738</u> feet from the <u>N</u> line and <u>941</u> feet from the <u>E</u> line Section <u>27</u> Township <u>17S</u> Range <u>28E</u> NMPM EDDY County
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3600;

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: ☐

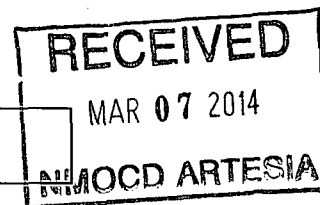
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Hole size 12.25" to 11"

OCCIDENTAL PERMIAN LTD respectfully request permission to make changes to the previously approved drilling plan. Please see the attached for your use and review.

Summary of Changes:

-Smaller surface hole and surface casing  
-Less cement on surface and production casing



Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jennifer Duarte TITLE REGULATORY SPECIALIST DATE 03-05-2014

Type or print name JENNIFER DUARTE E-mail address: Jennifer\_duarte@oxy.com PHONE: 713-513-6640

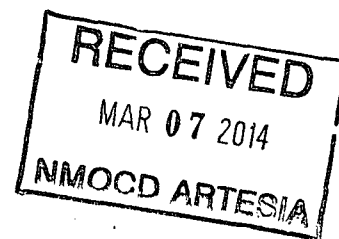
For State Use Only

APPROVED BY: T. C. Shepard TITLE "Geologist" DATE 3-7-2014

Conditions of Approval (if any):

**OXY USA Inc**

APD Data

OPERATOR NAME / NUMBER: OXY USA Inc

16696

LEASE NAME / NUMBER: Pooh 27 State 4

Federal Lease No:

STATE: NMCOUNTY: EddySURFACE LOCATION: 1738' FNL & 941' FEL, Sec 27, T17S, R28EAPPROX GR ELEV: 3599.7'EST KB ELEV: 3613.7' (14' KB-GL)**1. GEOLOGIC NAME OF SURFACE FORMATION**

a. Permian

**2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS**

Formation Name	Top TVD	Expected Fluids
Yates	520	-
Seven Rivers	712	-
Queen	1310	-
Grayburg	1725	Oil
San Andres	2005	Oil/Water
Glorieta	3430	Oil
Paddock	3510	Oil
Blinberry	3995	Oil
Tubb	5040	Oil
TD	5200	TD

A. Fresh Water formation is outcropping and will be covered with the 16" conductor pipe, which will be set at 80' prior to spud.

GREATEST PROJECTED TD: 5200' MD / TVDOBJECTIVE: Yeso**3. CASING PROGRAM**Surface Casing set at  $\pm 400'$  MD/ 400' TVD in a 11" hole filled with 8.8 ppg mud

Interval (MD)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Jt Str (M-lbs)	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
0' - 400'	8.625	24	J55	LTC	8.097	New	244	2950	1370	1.42	10.42	2.26

Production Casing set at  $\pm 5200'$  MD / TVD in a 7.875" hole filled 9.6 ppg mud

Interval (MD)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Jt Str (M-lbs)	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
0' - 5200'	5.5	17	L80	BTC	4.892	New	428	7740	6290	1.28	2.33	2.26

## **Casing Design Assumptions:**

### **Burst Loads**

#### **CSG Test (Surface)**

- Internal: Displacement fluid + one-third of its burst rating
- External: Pore Pressure from section TD to surface

#### **CSG Test (Production)**

- Internal: Displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

#### **Gas Kick (Surface)**

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

#### **Stimulation (Production)**

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the surface CSG shoe and 8.5 ppg MWE to surface

### **Collapse Loads**

#### **Lost Circulation (Surface)**

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the surface CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- External: MW of the drilling mud that was in the hole when the CSG was run

#### **Cementing (Surface/Production)**

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

#### **Full Evacuation (Production)**

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run

### **Tension Loads**

#### **Running CSG (Surface/Production)**

- Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

#### **Green Cement (Surface/Production)**

- Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi )

Burst, Collapse and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software.

## **4. CEMENT PROGRAM:**

### **Surface Interval**

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Lead:</b> 0' – 400' (150% Excess)	210	400	Premium Plus Cement: 2% Calcium Chloride – Flake	6.39	14.8	1.34	1648 psi

**Production Interval**

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Lead:</b> 0' – 3000' (100% Excess)	410	3000	Econocem (TM) System: 0.25 lbm D-AIR 5000	13.88	11.9	2.43	258 psi
<b>Tail:</b> 3000' - 5200' (100% Excess)	500	2200	Premium Plus Cement: 0.5% Halad ®-344, 0.2% WellLife 734, 5 lbm Microbond, 0.3% Econolite, 0.3% CFR-3	7.72	14.2	1.55	1697 psi

**Description of Cement Additives:** Calcium Chloride – Flake (Accelerator), D-AIR 5000 (Defoamer), Halad ®-344 (Low Fluid Loss Control), WellLife 734 (Cement Enhancer), Microbond (Expander), Econolite (Light Weight Additive), CFR-3 (Dispersant)

The volumes indicated above may be revised depending on if a caliper measurement.

**5. DIRECTIONAL PLAN**

Vertical well: No directional plan

**6. PRESSURE CONTROL EQUIPMENT**

**Surface: 0' – 400'** None.

**Production: 400' MD/TVD – 5200' MD / TVD** The minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi. Operator will be using an 11" 3M two ram stack with 3M annular preventer, & 3M Choke Manifold.

- The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 8 5/8" surface casing and the 8 5/8" SOW x 11" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary. The BOP and ancillary BOPE will be tested by a third party after setting surface casing. All equipment will be tested to 250/3000 psi for 10 minutes and charted, except the annular, which will be tested to 70% of working pressure.
- The surface casing string will be tested to one-third of its burst rating for 30 minutes.
- The BOPE test will be repeated within 21 days of the original test, on the first trip.
- Other accessory BOP equipment will include a floor safety valve, choke lines, and choke manifold having a 3000 psi working pressure rating and tested to 3000 psi.
- The Operator also requests a variance to connect the BOP choke outlet to the choke manifold using a 3" co-flex hose with a working pressure of 3000 psi.
- BOP & Choke manifold diagrams attached.

**7. MUD PROGRAM:**

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0' – 400'	8.4 – 8.8	32 – 34	NC	Fresh Water / Spud Mud
400' – 4700'	9.6 – 10	28 – 32	NC	Brine Water / Salt Gel / Sweeps
4700' – TD	9.6 – 10	40 – 45	< 15	Brine Water / Salt Gel / Sweeps

**Remarks:** Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

## 8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

## 9. POTENTIAL HAZARDS:

- a. Hydrogen Sulfide detection/ breathing equipment will be in operation and on location from drilling out the surface casing shoe until the production casing has been cemented.
- b. No abnormal temperatures or pressures are anticipated. The highest anticipated pressure gradient is 0.5 psi/ft. Maximum anticipated bottom hole pressure is between 2000 - 2750 psi.
- c. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

## 10. WIRELINE LOGGING / MUD LOGGING / LWD

- a. OH logs: Spectral GR/Density/Neutron/PEF/Caliper/Laterolog from 2,000' to TD
- b. Mud logging from 2000' to TD

## COMPANY PERSONNEL:

<b>Name</b>	<b>Title</b>	<b>Office Phone</b>	<b>Mobile Phone</b>
Kacie Cruz	Drilling Engineer	(713)350-4889	(281) 433-6594
Sebastian Millan	Drilling Engineer Supervisor	(713)350-4950	(832) 528-3268
Roger Allen	Drilling Superintendent	(713)215-7617	(281) 682-3919
Oscar Quintero	Drilling Manager	(713)985-6343	(713) 689-4946