District I
625 N French Dr , Hobbs, NM 88240
District II
301 W Grand Avenue,Artesia, NM 88210
District III
000 Rio Brazos Rd , Aztec, NM 87410
District IV
220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Divsiion
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
June 16, 2008

HOBBS OCD
OCT 19 2012
RECEIVED

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Occidental Permian Ltd. P.O. Box 4294, Houston, TX 77210-4294	157984
	[3] API Number 30-025-40834

[4] Property Code	[5] Property Name	[6] Well No
19520	North Hobbs G/SA Unit	833

[9] Proposed Pool 1	[10] Proposed Pool 2
Hobbs; Grayburg - San Andres	

Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	18	18-S	38-E		2035	South	840	West	Lea

Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County

Additional Well Location

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
New Well	O	R	P	3670.3'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	4500'	San Andres	Savanna 413	December, 2012

[1] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4	8-5/8	24	1580	810	Surface
7-7/8	5-1/2	17	4490	770	Surface

[2] Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any Use additional sheets if necessary

See Attached

Permit Expires 2 Years From Approval Date Unless Drilling Underway

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief

Signature:	Mark Stephens
Printed name:	Mark Stephens
Title:	Regulatory Compliance Analyst
E-mail Address:	Mark_Stephens@oxy.com
Date: 10/18/12	Phone: (713) 366-5158

OIL CONSERVATION DIVISION

Approved by: [signature]

Title: Dist. Mgr

Approval Date: 10-23-2012 Expiration Date: 10-23-2014

Conditions of Approval Attached ☐

APD DATA – DRILLING PLAN

OPERATOR NAME / NUMBER: Occidental Permian Ltd. (157984)

LEASE NAME / NUMBER: North Hobbs G/SA Unit No. 833

STATE: NM **COUNTY: Lea**

SURFACE LOCATION: **2035' FSL & 840' FWL, UL L, Sec. 18, T-18-S, R-38-E**

SL: **Lat:** **32.7456997' N** **LONG:** **103.1930250' W**
X: **850608.5** **Y:** **636883.9** **New Mexico East NAD 1927**

C-102 PLAT APPROX GR ELEV: 3670.3'

EST KB ELEV: 3683.3' (13' KB)

1. **GEOLOGIC NAME OF SURFACE FORMATION**
   a. Permian

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

Formation	TV Depth Top*	Expected Fluids
Base Red Beds	229	Fresh Water
Rustler	1539	Formation Fluid
Top of Salt	1629	Formation Fluid
Base of Salt	2734	Formation Fluid
Queen	3469	Formation Fluid
Grayburg	3789	Formation Fluid
Basal Grayburg	3964	Formation Fluid
San Andres	4104	Hydrocarbon
TD	4500	TD

*Note: Depths are below GL.

A. Fresh Water formations will be covered with the 16" conductor pipe, which will be set at 53' prior to spud.

GREATEST PROJECTED TD 4490' MD / 4490' TVD **OBJECTIVE**: San Andres

3. **CASING PROGRAM**

Surface Casing: 8.625" 24# J55 STC casing set at ± 1600' MD/ 1600' TVD in a 12.25" hole filled with 9.8 ppg mud
Production Casing: 5.5" 17# J55 LTC casing set at ± 4500'MD/ 4500'TVD in a 7.875" hole filled with 10.3 ppg mud

String	OD (in)	ID (in)	Coupling OD (in)	Drift (in)	Weight (#/ft)	Grade	CXN	Burst (psi)	Collapse (psi)	Tension (k-lbs)	Torque (ft-lbs)		
											Minimum	Optimum	Maximum
Conductor	16	14.68		14.5			Weld						
Surface	8.625	8.097	9.625	7.972	24	J-55	ST&C	2950	1370	244	1830	2440	3050
Production	5.5	4.892	6.050	4.767	17	J-55	LTC	5320	4910	247	1850	2470	3090

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount sks	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Surface (TOC: 0' – 1600')							
Lead: 0' – 1280' 100% Excess	610	1280'	Premium Plus Cement: 94 lbm/sk Premium Plus Cement 4 % Bentonite (Light Weight Additive) 1 % Calcium Chloride - Flake(Accelerator) 0.125 lbm/sk Poly-E-Flake (LC Additive) 2 lbm/sk Kol-Seal (LC Additive)	9.04	13.5	1.74	810 psi
Tail: 1280' – 1600' 100% Excess	200	300'	Premium Plus Cement: 94 lbm/sk Premium Plus Cement, 1 % Calcium Chloride - Flake	6.36	14.8	1.34	2500 psi

Production Interval

Interval	Amount sks	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Production (TOC: 0' - 4500')							
Stage 1 **Primary:** **3600'-4500'** 75% Excess	230	3550'	Premium Plus Cement 94 lbm/sk Premium Plus Cement 1 % LAP-1 (Low Fluid Loss Control) 0.4 % CFR-3 (Dispersant) 0.25 lbm/sk D-AIR 3000 (Defoamer) 0.2 % HR-800 (Retarder)	6.26	14.8	1.34	1180 psi
Stage 2 **Lead:** 0' – 3294' 150 % Excess	440	3294'	Interfill C 0.125 lbm/sk Poly-E-Flake (LC.) 3 lbm/sk Kol-Seal (LC Add.) 0.25 lbm/sk D-AIR 5000 (Defoamer)	14.22	11.9	2.50	470 psi
Stage 2 **Tail:** '3294-3600' 150 % Excess	100	351	Premium Plus Cement 94 lbm/sk Premium Plus Cement 0.125 lbm/sk Poly-E-Flake (LC)	6.32	14.8	1.33	1571

5. PRESSURE CONTROL EQUIPMENT

Surface: 0 – 1600' None.

Production: 1600' - 4500' 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 (including annular).

Casing Size (in.)	Wellhead Flange		BOP Stack			Pressure Test (psi)			
						Initial		Subsequent	
	Size (in.)	Pressure (psi)	Type[1]	Size (in.)	Pressure (psi)	Rams	Ann	Rams	Ann
8 ⅝"	11"	3000	**R, R, A, G**	11"	5000	250/**2300**	250/**2100**	250/**2300**	250/**2100**

a. 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 wellhead. A modified Wellhead System with 5-1/2" Mandrel Hanger will be used.

b. The BOP and auxillary BOPE will be tested by a third party upon installation to the 8 5/8" 24# J-55 surface casing. All equipment will be tested to 250/2300 psi for 10 minutes except the annular, which will be tested to 70% of working pressure (2100 psi).

c. The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3" choke line having a 3000 psi WP rating.

d. See attached BOP & Choke manifold diagrams.

6. MUD PROGRAM:

Depth (ft)	Mud Weight (ppg)	Viscosity (sec/qt)	Fluid Loss (cc's)	pH	Mud System
0 – 1400	8.5 – 9.3	28 – 32	NC	<9.0	Freshwater / Sweeps
1400 - 1580	8.8 – 9.2	32 – 38	< 25	<9.0	FW – Native Mud
1580 – 4000	9.8 – 10.1	28 – 32	NC	10.0 – 11.0	Brine Water / Sweeps
4000 - 4500	10.0 – 10.3	34 - 40	<10	10.5 – 11.0	Salt Gel / Starch

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The necessary mud products for additional weight and fluid loss control will be on location at all times.

A. 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.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

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

b. Hydrogen sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the REGULATORY AGENCIES.

8. LOGGING / CORING AND TESTING PROGRAM:

A. Mud Logger: None.

B. DST's: None.

C. Open Hole Logs as follows: May have triple combo for production section surface to TD. Spectral GR from B. Grayburg to TD. May have RFT testing.

9. POTENTIAL HAZARDS:

A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.

B. The MASP will be 1254psi and BOP test (MASP + 500) will be 1754psi

C. No abnormal temperatures or pressures are anticipated. 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.

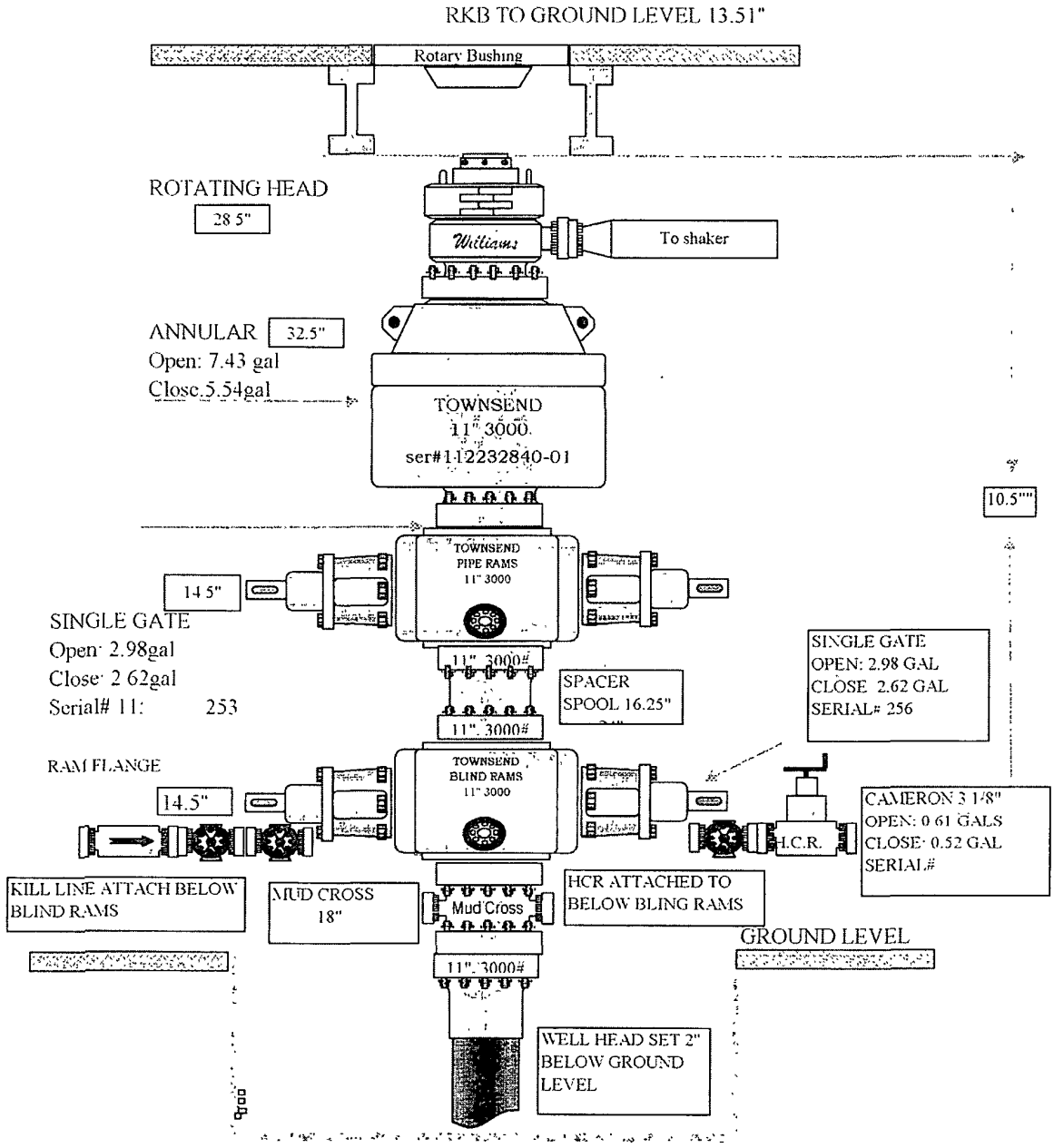
10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the NMOCD has approved the APD. Anticipated spud date will be as soon as possible after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

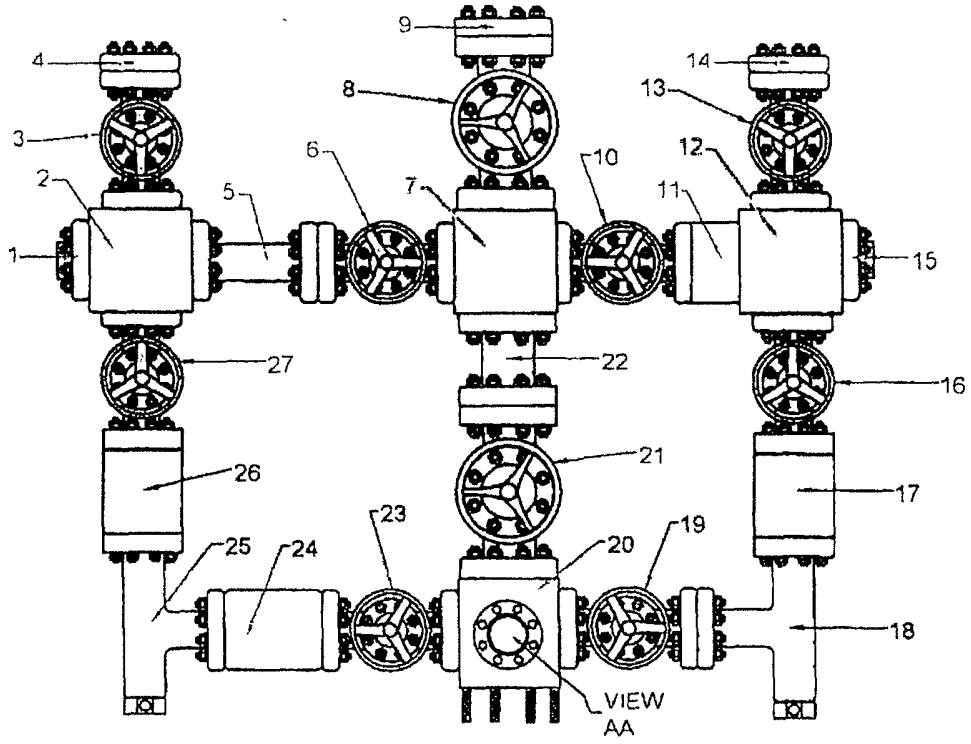
11. COMPANY PERSONNEL:

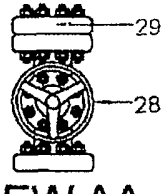
Name	Title	Office Phone
Florencia Rubio	Drilling Engineer	713-366-5322
Mike Tessari	Drilling Engineer Supervisor	713-840-3092
Chad Frazier	Drilling Superintendent	713- 215-7357
Javier Gonzalez	Drilling Manager	713-366-5530

SAVANNA DRILLING 413 Date · SEPTEMBER 15,2012



RIG #





VIEW AA

Scale: N.T.S	Date:	Description: 3-1/8" x 2-1/16" 3000# NACE TRIM SINGLE GUT CHOKE & KILL MANIFOLD SYSTEM	PACIFIC VALVE SERVICES INC
Drawn by: RAVI MANI	DWG#		
Checked by:	REV 00		

3-1/8" x 2-1/16" 3000# NACE TRIM SINGLE GUT CHOKE & KILL MANIFOLD SYSTEM

August-06

ITEM	I.D. NO.	DESCRIPTION
1	9053	2-1/16" 5000# BLIND FLANGE
2	AR0605004	2-1/16" 5000# STUDDED CROSS
3	AS0606009	2-1/16" 5000# CNV NACE TRIM GATE VALVE
4	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
5	Q7082	2-1/16" 3000# x 8.562" O.A.L. FLANGED SPACER SPOOL
6	AS0606003	2-1/16" 5000# CNV NACE TRIM GATE VALVE
7	A0445	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" 3000# STUDDED CROSS
8	AS0606119	3-1/8" 3000# CNV NACE TRIM GATE VALVE
9	F3323	3-1/8" 3000# x 3" L.P. COMPANION FLANGE
10	AS0606004	2-1/16" 5000# CNV NACE TRIM GATE VALVE
11	Q7082	2-1/16" 3000# x 3.312" O.A.L. SOLID SPACER SPOOL
12	AR0605007	2-1/16" 5000# STUDDED CROSS
13	AS0606005	2-1/16" 5000# CNV NACE TRIM GATE VALVE
14	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
15	9053	2-1/16" 5000# BLIND FLANGE
16	AS0606007	2-1/16" 5000# CNV NACE TRIM GATE VALVE
17	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
18	1091200-1-1130	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
19	AS0606006	2-1/16" 5000# CNV NACE TRIM GATE VALVE
20	A0441	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" x 2-1/16" 3000# 5- WAY STUDDED BLOCK
21	AS0606118	3-1/8" 3000# CNV NACE TRIM GATE VALVE
22	51209	3-1/8" 3000# x 10.5" O.A.L. FLANGED SPACER SPOOL
23	AS0606001	2-1/16" 5000# CNV NACE TRIM GATE VALVE
24	Q7082	2-1/16" 3000# x 4.733" O.A.L. SOLID SPACER SPOOL
25	1091200-1-1137	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
26	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
27	AS0606008	2-1/16" 5000# CNV NACE TRIM GATE VALVE
28	AS0606002	2-1/16" 5000# CNV NACE TRIM GATE VALVE
29	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE