

HOBBS OCD

AUG 10 2016

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FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC020410A-057210	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A	
2. Name of Operator ConocoPhillips Company (217817)		7. If Unit or CA Agreement, Name and No. N/A	
3a. Address 600 N. Dairy Ashford Rd.; P10-3096 Houston, TX 77079-1175		8. Lease Name and Well No. MCA Unit 550 (31422)	
3b. Phone No. (include area code) 281-206-5281		9. API Well No. 30-025-43383	
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 1504' FNL and 896' FEL; UL H, Sec. 28, T17S, R32E (H) At proposed prod. zone 1331' FNL and 660' FEL; UL H, Sec. 28, T17S, R32E (H)		10. Field and Pool, or Exploratory Maljamar; Grayburg, San Andres (43329)	
14. Distance in miles and direction from nearest town or post office* Approximately 3.5 miles south of Maljamar; New Mexico		11. Sec., T, R. M. or Blk. and Survey or Area Sec. 28, T17S, R32E	
15. Distance from proposed* 11' to UL line location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish Lea County	
16. No. of acres in lease 560.00		13. State NM	
17. Spacing Unit dedicated to this well 40			
18. Distance from proposed location* approx. 440' at surface to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file ES0085	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3999' GL		22. Approximate date work will start* 01/01/2016	
		23. Estimated duration 7 days	
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Susan B. Maunder</i>	Name (Printed/Typed) Susan B. Maunder	Date 6/26/15
Title Senior Regulatory Specialist		
Approved by (Signature) <i>/s/George MacDonell</i>	Name (Printed/Typed)	Date AUG 1 - 2016
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

KZ
08/10/16SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

ConocoPhillips, MCA UNIT 550

1. Geologic Formations

TVD of target	4503'	Pilot hole depth	NA
MD at TD:	4521'	Deepest expected fresh water:	853'

Permian Basin

Formation	TVD (ft)
Rustler	853
Salado	1023
Tansill	2023
Yates	2173
Seven Rivers	2508
Queen	3133
Grayburg	3493
San Andres	3868
TD	4503

2. Casing Program

See CCA

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
12.25"	0	888' 925'	8.625"	24	J55	STC	3.49	7.52	11.4
7.875"	0	4511'	5.5"	17	J55	LTC	2.1	2.27	3.23
BLM Minimum Safety Factor							1.125	1	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

ConocoPhillips, MCA UNIT 550

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	YES
Does casing meet API specifications? If no, attach casing specification sheet.	YES
Is premium or uncommon casing planned? If yes attach casing specification sheet.	NO
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	YES
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	N/A
Is well located within Capitan Reef?	NO
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	NO
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	NO
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	NO
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	NO
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	350	13.5	1.75	9.17	15.75	Lead: Class C + 4% Bentonite + 2% CaCl ₂ + 0.25% Cello Flake (LCM)
	250	14.8	1.34	6.36	8	Tail: Class C + 2% CaCl ₂
DV Tool-Contingency	450	11.5	3.22	19.06	29	Lead: Class C + 3% MPA-5 (strength enhancement) + 10% extender + .005 lbs/sx Static Free + .005 gps defoamer + .125 lb/sx Cello Flake + 3 lbs/sx LCM + 2% extender + 1% bonding improver + 6% Bentonite
	320	14.0	1.37	6.17	5.5	Tail: (35:65) Poz: Class C + 1% Extender + 1.5% Fluid Loss Add. + .125 lbs/sx Cello Flake + 3 lbs/sx LCM
	250	14.8	1.34	6.36	8	Stage 2: Class C + 2% CaCl ₂

ConocoPhillips, MCA UNIT 550

Prod.	450	11.5	3.21	19.34	29	Lead: Class C +10% Gas Migration Add.+2% Extender+3% MPA-5 (strength enhancement) +1% BA-10A (Bonding improver)+6% Bentonite
	320	14.0	1.37	6.48	5.5	Tail: (35:65) Poz:Class C+1% Extender+1.5% Fluid Loss Add.

Lab reports with recipe and the 500 psi compressive strength time for the cement will be onsite for review.

DV tool to be run and two stage cement job to be performed as contingency in the event of flows or severe losses while drilling and running casing. DV tool depth will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe.

Casing String	TOC	% Excess
Surface	0'	157% lead, 107% tail
Production	0'	262% lead, 81% tail

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
7-7/8"	11"	3M	Annular	x	70% of working pressure 3M
			Blind Ram		
			Pipe Ram		
			Double Ram	x	
			Other*		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.