HOBBS OCD

JUL 2 3 2013

Fonn 3160 - 3 (April 2004)	OCD Hobbs	FORM APPROVEDVED OMB No. 1004-0137 Expires March 31, 2007				
UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN APPLICATION FOR PERMIT TO	INTERIOR AGEMENT		5. Lease Serial No.	MLC-	065525	
la. Type of work: 🔽 DRILL 🗌 REENTI	ER		7 If Unit or CA Agre EBDU <nm11< td=""><td></td><td>me and No.</td><td></td></nm11<>		me and No.	
lb. Type of Well: Voll Well Gas Well Other	Single Zone	tiple Zone	8. Lease Name and EAST BLINE		3502 INKARD UN I	
2. Name of Operator APACHE CORPORATION	(873)	,	9. API Well No. 30-025-	n 2	BG	
3a. Address 303 VETERANS AIRPARK LN #3000 MIDLAND, TX 79705	3b. Phone No. (include area coge) 432-818-1167		10. Field and Pool, or I EUNICE; BLI			20>
4. Location of Well (Report location clearly and in accordance with an Atsurface 3045' FNL & 875' FWL		11. Sec., T. R. M. or B			· .	
At surface 3045 FNL & 875 FWL At proposed prod. zone SAME			Lot: 12 SEC: 1	T21S	R37E	
14. Distance in miles and direction from nearest town or post office* APPROX 7.3 MILES NORTH OF EUNICE, NM			12. County or Parish LEA		13. State NM	
15. Distance from proposed* 875' location to nearest property or lease line, ft.	16. No. of acres in lease 1928-48 ACRES		g Unit dedicated to this v	vell		
(Also to nearest drig, unit line, if any) 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. ~175'	19. Proposed Depth 7300	20. BLM/I	BIA Bond No. on file - CO - 1463 / NMB00	00736		
21. Elevations (Show whether DF, KDB, RTG), etc.) 3523' - GL	22 Approximate date work will s AS Scon As App 24. Attachments	,	23. Estimated duration ~ 10 DAYS	n		
The following, completed in accordance with the requirements of Onsho		attached to the	is form:		<u></u>	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the 5. Operator certif). fication e specific info	ns unless covered by an prination and/or plans as	Ţ	r	
25. Signature Sorina Litoer	Name (Printed/Typed) SORINA L. FLOI	TES		Date 1/2	3] 13	
Title SUPV OF DRILLING SERVICES					•	
Approved by (Signature)	Name (Printed/Typed)			Date		
Title FIELD MANAGER	Office CARLSBA	D FIELD (OFFICE	<u>.</u>		
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those rig		jectlease which would e			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	to any matter within its jurisdiction.	willfully to m	ake to any department o	r agency c	of the United	
*(Instructions on page 2)	Ka 07/26/1	Capita 3	In Controlled V	Vater B	lasin	

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SEE ATTACHED FOR CONDITIONS OF APPROVAL

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Approval Subject to General Requirements & Special Stipulations Attached

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DRILLING PLAN: BLM COMPLIANCE

(Supplement to BLM 3160-3)

HOEBS OCD

APACHE CORPORATION (OGRID: 873) EAST BLINEBRY DRINKARD UNIT #120

Lease #: NMLC-0065525 Projected TD: 7300' GL: 3523' 3045' FNL & 875' FWL Lot: 12 SEC: 1 T21S R37E LEA COUNTY, NM JUL 2 3 2013

1. GEOLOGIC NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits

osits RECEIVED

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

Quaternary Aeolian	Surf	San Andres	4247'
Rustler	1541'	Glorieta	5457'
Salt Top	1583'	Paddock	5515'
Salt Bottom	2686'	Blinebry	5852′(Oil)
Yates	2827'	Tubb	6307' (Oil)
Seven Rivers	3087'	Drinkarð	6746 (Oil)
Queen	3651'	ABO	7004' (Oil)
Grayburg	3986'	TD	7300'

Depth to Ground Water: ~ 75'

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth and adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential.

3. CASING PROGRAM: All casing is new & API approved

	HOLE SIZE	DEPTHE	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
and it	11″	0'-1566	8-5/8″	24#	STC	J-55	1.125	1.21	1.8
5'00	7-7/8″	0'-7300'	5-1/2"	17#	LTC	L-80	1.125	1.21	1.8

4. CEMENT PROGRAM:

A. <u>8-5/8" Surface cmt with (100% excess cmt; Cmt to Surface):</u>

Lead: 330 sx Class C w/ 2% CaCl2, 0.13# CF, 3# LCM1, 0.005 gps FP-6L, 4% Bentonite (13.5 ppg, 1.75 yld) Comp Strengths : 12 hr - 500 psi 24 hr - 782 psi

 Tail: 200 sx Class C w/
 1% CaCl2, 0.13 # CF, 0.005 gps FP-6L

 (14.8 ppg, 1.34 yld)
 Comp Strengths : 12 hr - 755 psi
 24 hr - 1347 psi

B. <u>5-1/2" Production cmt with (30% excess cmt; cmt to surf):</u>

Lead: 620 sx (35:65) Poz Cl C w/ 5% CaCL2, 0.125 # CF, 3# LCM1, 0.5% FL52, 0.005gps FP6L, 6% Bentonite, 0.3% Sodium Metacilicate (11.9ppg, 2240 yld) Comp Strengths: **12 hr** – 603 psi **24 hr** – 850 psi

 Tail:
 320 sx (50:50) Poz Cl C w/ 5% CaCL2 + 0.13% CF, 3# LCM1 + 0.005gps FP6L + 2% Bentonite + 1% FL25 + 1% BA58 + 0.1% Sodium Metasilicate (14.8 ppg, 1.34 yld) Comp Strengths: 12 hr - 850 psi
 24 psi - 1979 psi

** The above cmt volumes could be revised pending caliper measurement from open hole logs. TOC is designed to reach surface on Surface and Production. For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified, TOC shall be determined by running a temperature log, operator will propose a remediation method & request BLM approval. All slurries will be tested prior to loading to confirm thickening times & a lab report furnished to Apache. Fluid loss will be tested & reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.

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5. PROPOSED CONTROL EQUIPMENT

"EXHIBIT 5" shows a 900 series 11" 3M psi WP BOP consisting of an annular bag type preventer, middle blind rams, bottom pipe rams. The BOP will be nippled up on the 8-5/8" csg and utilized continuously until TD is reached. The BOP will be tested at 2000 psi, maximum surface pressure is not expected to exceed 2M psi, BHP is calculated to be approximately 3212 psi. *All BOP's and associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Functional tests will be documented on the daily driller's log. *"EXHIBIT 5"* also shows a 3M psi choke manifold with a 4" panic line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures of temperatures are expected in this well. No nearby wells have encountered any problems.

6.	AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:	HOBBS OCD
	11" x 3000 psi Double BOP/Blind & pipe ram (3M BOP/BOPE to be used as 2M system)	
	4-1/2" x 3000 psi Kelly valve	
	9" x 3000 psi mud cross – H2S detector on production hole	JUL 2 3 2013
	Gate-type safety valve 3" choke line from BOP to manifold	
•	2" adjustable chokes – 4" blow down line	RECEIVED
	Fill up line as per Onshore Order #2	2X5%~5% V 1248

7. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

	INTERVAL 535	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE	
n [0' -1566'	8.3 - 8.8	28 - 32	NC	Fresh Water	
	<u>,</u> 1566 – 7300'	9.8 - 10.2	28 – 32	NC	Brine	

** Visual mud monitoring equipment shall be in place to detect volume changes. A mud test shall be performed every 24 hrs after mudding up to determine, as applicable: density, visc, gel strength, filtration, and pH. The necessary mud products for weight addition & fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may have to be altered to meet these needs.

8. LOGGING, CORING & TESTING PROGRAM:

- A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Spectral Gamma Ray, Caliper & Sonic from TD back to last csg shoe.
- B. Run CNL, Gamma Ray from last csg shoe back to surface.
- C. No cores or DST's are planned at this time. Mud log will be included on this well.
- **D.** Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows & drill stem tests.

9. POTENTIAL HAZARDS:



No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H_2S in this area. If H_2S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6 (SEE EXHIBIT 6)*. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated <u>BHP: 3212 psi</u> and estimated <u>BHT: 115°</u>.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM has approved APD. Anticipated spud date will be as soon after BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take ~ 10 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

11. OTHER FACETS OF OPERATION:

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Eunice, BLI-TU-DRI, North formations will be perforated and stimulated in order to establish production. The well will be swab tested & potentialed as an oil well.



