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a se		OCD Hobbs			
		HOBES	OCD		
Form 3160-3 (March 2012)	20	MAR 3			APPROVED No. 1004-0137 Detober 31, 2014
UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MA	E INTERIOR			5. Lease Serial No. NMNM-90161	
APPLICATION FOR PERMIT TO			IVED	6. If Indian, Allotee	or Tribe Name
la. Type of work: 🔽 DRILL 🗌 REEN				7. If Unit or CA Agreement, Name and No. APACHE CORP - NMNM-120042X	
lb. Type of Well: 🖌 Oil Well 🗌 Gas Well 🗌 Other	Single	Zone 🗌 Multip	ole Zone	8. Lease Name and WEST BLINEBRY	Well No. <b>〈373</b> DRINKARD UNIT # <b>\</b>
2. Name of Operator APACHE CORPORATION				9. API Well No. 30-025- <b>4-2-4</b>	493
3a. Address 303 VETERANS AIRPARK LN #1000 MIDLAND, TX 79705	3b. Phone No. (inc.) 432-818-1167	lude area code)		10. Field and Pool, or I EUNICE; BLI-TU-D	Exploratory PR, NORTH <22900>
4. Location of Well (Report location clearly and in accordance with a	trty State requirements.*	)		11. Sec., T. R. M. or B	lk. and Survey or Area
At surface 695' FSL & 1760' FEL ( $\mathcal{D}$ ) At proposed prod. zone SAME	SEC: 8 T21S R37E				
<ul> <li>4. Distance in miles and direction from nearest town or post office*</li> <li>APPROX 4.5 MILES NORTH OF EUNICE, NM</li> </ul>				12. County or Parish LEA	13. State NM
<ul> <li>Distance from proposed*</li> <li>695'</li> </ul>	16. No. of acres i	in lease	17. Spacin	g Unit dedicated to this v	vell
property or lease line, ft. (Also to nearest drig. unit line, if any)	640 ACRES		40 ACRES		
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>				BIA Bond No. on file D-1463 NATIONWIDE / NMB000736	
1. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*			23. Estimated duration	n
GL: 3503'	<u>AS Sooh</u> 24. Attachme	As Appro	ved	~ 10 DAYS	
he following, completed in accordance with the requirements of Onsh			tached to thi	s form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System</li> </ol>	-	Bond to cover the Item 20 above). Item 20 above).	-	ns unless covered by an	existing bond on file (see
SUPO must be filed with the appropriate Forest Service Office).		Such other site s BLM.	specific info	ormation and/or plans as	may be required by the
25. Signature Spring Lilow	- Name (Prin SORINA 1	nted/Typed) L. FLORES	-		Date 4/23/14
SUPV OF DRILLING SERVICES					
Approved by (Signature) Steve Caffey	Name (Prin	nted/Typed)			Date MAR 24 2
itle FIELD MANAGER	Office	CARLS	BAD FIEL	DOFFICE	
pplication approval does not warrant or certify that the applicant hol	ds legal or equitable	title to those right	s in the sub	ject lease which would en	ntitle the applicant to
onduct operations thereon. conditions of approval, if any, are attached.		Α		VAL FOR TWO	
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a tates any false, fictitious or fraudulent statements or representations as	crime for any person to any matter within	knowingly and w its jurisdiction.	villfully to m	ake to any department o	r agency of the United
(Continued on page 2)				*(Instr	ructions on page 2)
			K	2/20/15	
pitan Controlled Water Basin					

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SEE ATTACHED FOR CONDITIONS OF APPROVAL

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Approval Subject to General Requirements & Special Stipulations Attached

MAR 3 1 2015

# DRILLING PLAN: BLM COMPLIANCE

(Supplement to BLM 3160-3)

MAR 3 0 2015 **APACHE CORPORATION (OGRID: 873) WEST BLINEBRY DRINKARD UNIT #185W** 

Projected TD: 7200' GL: 3503'

695' FSL & 1760' FEL UL: O Sec: 8 T215 R37E LEA COUNTY. NM

#### **1. GEOLOGIC NAME OF SURFACE FORMATION:** Quaternary Aeolian Deposits

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

Quaternary Aeolian	Surface	San Andres	4112'
Rustler	1250'	Glorieta	5199'
Top of Salt	1340'	Paddock	5277'
Base of Salt/Tansill	2513'	Blinebry	5674'
Yates	2652'	Tubb	6208′
Seven Rivers	2899'	Drinkard	6512'
Queen	3437'	ABO	6756'
Grayburg	3717′	TD	7200′

~ 65' Depth to Ground Water:

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

### 1375' See COA

#### **CASING PROGRAM:** /

All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
11″	0' – <del>1275</del>	8-5/8″	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	0'-7200'	5-1/2"	17#	LTC	L-80	1.125	1.0	1.8

#### 3. CEMENT PROGRAM:

#### 8-5/8" Surface (100% excess cmt to surf): Α.

Lead: 240 sx Cl C w/ 2% CACL2 + 0.13# CF + 3# LCM1 0.005 gps FP-6L + 4% Bentonite (13.5 wt, 1.75 yld, 8.962 gal/sx) Comp Strengths : 12 hr – 500 psi 24 hr – 782 psi

Tail: 200 sx CI C w/1% CACL@ + 0.13# CF + 0.005 gps FP-6L (14.8 wt, 1.34 yld, 6.302 gal/sx) Comp Strengths: 12 hr – 755psi 24hr – 1347psi

#### Β. 5-1/2" Production (Cmt to surf / 30 % excess cmt):

Lead: 700 sx (35:65) Poz CI C w/ 5% CaCL2 + 0.125 # CF + 3# LCM1 + 0.5% FL52 + 0.005 gps FP6L + 6% Bentonite, 0.3% Sodium Metacilicate (12.6 wt, 2.07 yld, 10.995 gal/sx) Comp Strengths: 12 hr - 580 psi 24 hr - 1072 psi

Tail: 275 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

(14.2 wt, 1.37 yld, 5.971 gal/sx) Comp Strengths: 12 hr -- 1130 psi 24 hr -- 1633 psi

\*\* The above cmt volumes could be revised pending caliper measurement from open hole logs. 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.

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#### 4. PROPOSED CONTROL EQUIPMENT

*"EXHIBIT 3"* shows an 11" 3M psi WP BOP consisting of an annular bag type preventer, middle pipe rams, bottom blind rams. The BOP will be nippled up on the 8-5/8" surface csg head & tested to 3000psi using test plug & utilized continuously until TD is reached. The BOP will be tested at 3000psi, maximum surface pressure is not expected to exceed 3M psi, BHP is calculated to be approximately 3168 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. Function tests will be documented on the daily driller's log. *"EXHIBIT 5"* also shows a 3M psi choke manifold with a 3" 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.

## 5. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

Su [	INTERVAL AUDI	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
(SA-	0'-1275'	8.3 - 8.8	28-32	NC	Fresh Water
(0N	1275' - 7200'	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.

#### 6. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

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
11" x 3000 psi mud cross – H2S detector on production hole
Gate-type safety valve - 3" choke line from BOP to manifold
2" adjustable chokes – 3" blow down line
Fill up line as per Onshore Order 2

7. LOGGING, CORING & TESTING PROGRAM:

- A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Gamma Ray, Caliper from TD back to 8-5/8" csg shoe.
- B. Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
- C. No cores, DST's or mud logger are planned at this time.
- **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.

#### 8. 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*. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated <u>BHP: 3168 psi</u> and estimated <u>BHT: 115°</u>.

#### 9. 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 approx <u>10 days</u>. If production casing is run then an additional <u>90 days</u> will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

#### **10. 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-Dr, North formation will be perforated to increase oil recovery. The well will be tested & potentialed as a water injection well.

#### APACHE BOP AND CHOKE MANIFOLD SCHEMATIC



\*\*\* If H2S is encountered in quantities greater than 100ppm, Apache will shut in well & install a remote operated choke \*\*\*





# RIG ORIENTATION & LAYOUT WEST BLINEBRY DRINKARD UNIT #185W EXHIBIT 5



## PRIVATE SURFACE OWNER AGREEMENT

**HOBBS OCD** 

OPERATOR:APACHE CORPORATION	MAR 3 0 2015
WELL NAME: WEST BLINEBRY DRINKARD UNIT #185W	RECEIVED
UL: <b>O</b> SECTION: <b>8</b> TOWNSHIP: <b>21S</b> RANGE: _ <b>37E</b>	
LOCATION: 695' FSL & 1760' FEL COUNTY: LEA STATE: MM	
LEASE NUMBER: NMNM-90161	

## STATEMENT OF SURFACE USE

The surface to the subject land is owned by <u>Millard Deck Estate, c/o Bank of America NA,</u> <u>Trustee of Millard Deck Testamentary Trust under Last Will & Testament of Millard Deck,</u> <u>ATTN: Jeff Petter, Asst VP, US Trust-Farm & Ranch, Bank of America Private Wealth Mgmt,</u> PO Box 270, Midland, TX 79702 (303 W. Wall St, Midland, TX 79701) 432-688-7926

The surface owner has been contacted regarding the drilling of the subject well, and an agreement for surface use has been negotiated.

**CERTIFICATION:** I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

NAME:	MAXWELL GROVE				
SIGNATURE:	Macuell	Hune			
DATE:	1/15/2014				

TITLE: DRILLING ENGINEER

.. :

To expedite your Application to Drill please fax the completed form to the Bureau of Land Management (575) 234-5927 or (575) 885-9264 Attn: Legal Instruments Examiner 620 E. Green Street Carlsbad, NM 88220

The original document with signature should be mailed as soon as possible.

# UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** CARLSBAD FIELD OFFICE 620 E. GREENE STREET CARLSBAD, NM 88220

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MAR 3 0 2015

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### **OPERATOR CERTIFICATION**

I HEARBY CERTIFY THAT I, OR SOMEONE UNDER MY DIRECT SUPERVISION, HAVE INSPECTED THE DRILL SITE AND ACCESS ROUTE PROPOSED HEREIN; THAT I AM FAMILIAR WITH THE CONDITIONS WHICH CURRENTLY EXIST; THAT I HAVE FULL KNOWLEDGE OF STATE AND FEDERAL laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this	day of <b>Ap</b>	ri  2.0	(4			
Well: WEST	BLINEBRY DR	INKARD UI	NIT #185W			
Operator Name:	APACHE COR	PORATION				
Signature: Macul	1 Shine	Pri	nted Name:	MAXWELL GROVE		
Title: Drilling Engineer		D	ate: 04/13	5/2014		
Email (optional):						
Street or Box:	303 Veterans	<u>Airpark Ln</u>	., Ste. 1000			
City, State, Zip Code:	Midland, TX	79705				
Telephone:	281	-302-2881				
Field Representative (if not above signatory):						
Address (if different from above):						
Telephone (if different from above):						
Email (optional):						

Agents not directly employed by the operator must submit a letter from the operator authorizing that the agent to act or file this application on their behalf.