Form 3160-5 (August 2007) UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.		enter an	FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010 5. Lease Serial No. NMLC029426B 6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRI	verse side.	7. If Unit or CA/Agree	ment, Name and/or No.	
1. Type of Well ☑ Oil Well □ Gas Well □ Other			8. Well Name and No. CROW FEDERAL 12H	
2. Name of Operator APACHE CORPORATION	LORES	9. API Well No. 30-015-40576-00-X1		
3a. Address 303 VETERANS AIRPARK LA MIDLAND, TX 79705	ANE SUITE 3000 3b. Phone No Ph: 432.81	o. (include area code) 8.1167	10. Field and Pool, or Exploratory CEDAR LAKE	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)			,11. County or Parish, and State	
Sec 10 T17S R31E SWSW 10 32,844504 N Lat, 103.864769	*	EDDY COUNTY	, NM .	
12. CHECK APPI	ROPRIATE BOX(ES) TO INDICATE	E NATURE OF NOTICE, R	EPORT, OR OTHER	DATA
TYPE OF SUBMISSION	TYPE OF ACTION			
Notice of Intent	□ Acidize □ Dee □ Alter Casing. □ Frac	pen	tion (Start/Resume)	 Water Shut-Off Well Integrity
Subsequent Report	🗖 Casing Repair 🗖 Nev	v Construction 🗖 Recom	plete	🛛 Other Change to Original A
☐ Final Abandonment Notice	Convert to Injection	g Back 🔲 Water	-	PD
If the proposal is to deepen direction: Attach the Bond under which the wo- following completion of the involved testing has been completed. Final At determined that the site is ready for f BOND#: BLM-CO-1463 / NM Apache proposes to change th	B000736 ne following casing/Cmt/BOP program:	locations and measured and true v n file with BLM/BIA. Required su le completion or recompletion in a requirements, including reclamation	ertical depths of all pertine absequent reports shall be f new interval, a Form 3160 on, have been completed, an	nt markers and zones. iled within 30 days -4 shall be filed once
Hole Depth OD Csg Wt Collar Grade Clpse Burst Tension JUL 11 2013				
Interm 11" 0-3500? 8-5/8" 32# STC J-55 1.0 1.21 1.8 Prod 7-7/8" 0-10808? 5-1/2" 17# LTC J-55 1.0 1.21 1.8 Intermediate (TOC-Surface) *50% excess cmt to surf*. Cmt with: Lead: 580 sx 35/65 Poz C w/6% Gel + 5% Salt				
Intermediate (TOC-Surface) *50% excess cmt to surf*. Cmt with: Lead: 580 sx 35/65 Poz C w/6% Gel + 5% Salt CONDITIONS Concepted for record				
14. I hereby certify that the foregoing is	true and correct. Electronic Submission #211755 verifie For APACHE CORPORAT mitted to AFMSS for processing by KU	ON, sent to the Carlsbad	2	
Name(Printed/Typed) SORINA L	FLORES	Title SUPERVISOR - DI	RILLING SERVICES	
Signature (Electronic S	Submission)	Date 06/25/2013		
	THIS SPACE FOR FEDERA	L OR STATE OFFICE U	SE	
_Approved By_CHRISTOPHER WALLS			EER	Date 07/08/2013
Conditions of approval, if any, are attached. Approval of this notice 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.		Office Carlsbad		
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it a crime for any pe statements or representations as to any matter w	erson knowingly and willfully to m ithin its jurisdiction.	ake to any department or a	gency of the United

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** BLM REVISED **

Additional data for EC transaction #211755 that would not fit on the form

32. Additional remarks, continued

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(12.4 wt, 2.10 yld) Comp Strengths: 12 hr-589psi 24 hr-947psi

Tail: 160 sx Class C (14.8 wt, 1.34 yld)Comp Strengths: 12 hr-813psi 24 hr-1205psi

Production (TOC: ~2500' from surf) *35% excess cmt* Cmt with: Lead: 120 sx 35/65 Poz c w/6% Gel + 5% Salt (12.4 wt, 2.10 yld)Comp Strengths: 12 hr-589psi 24 hr-947psi

Tail: 1170 sx PVL w/1.3% Salt + 0.6% Retarder (13.0 wt, 1.47 yld) Comp Strengths: 12 hr-800psi 24 psi-1000psi

13-5/8" 3M psi WP BOP consisting of annular bag type preventer. This BOP will be nippled up on the 13-3/8" surf csg head & tested to 2000psi. After the 8-5/8" Interm csg is set & cmtd, and 11" 3M BOP consisting of an annular bag type preventer, middle blind rams & bottom pipe rams will be installed & utilized continuously until TD is reached. The BOP will be tested @ 2000psi. All BOP's & associated equip mill be tested as per BLM Drilling Operations Order #2.

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CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Apache Corp	
LEASE NO.:	LC029426B	
WELL NAME & NO.:	12H Crow Federal	
SURFACE HOLE FOOTAGE:	1013' FSL & 250' FWL	
LOCATION:	Section 10, T.17 S., R.31 E., NMPM	
COUNTY:	Eddy County, New Mexico	

A. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 575 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Cement should tie-back at least 1000 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000** (**2M**) psi.
- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.
 - d. The results of the test shall be reported to the appropriate BLM office.

- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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