

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 30 2015

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**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.**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: UNKNOWN OTH		5. Lease Serial No. NMLC028775B
2. Name of Operator APACHE CORPORATION		6. If Indian, Allottee or Tribe Name
Contact: REESA FISHER E-Mail: Reesa.Fisher@apachecorp.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 303 VETERANS AIRPARK LANE SUITE 3000 MIDLAND, TX 79705	3b. Phone No. (include area code) Ph: 432-818-1062	8. Well Name and No. BARNSDALL FEDERAL SWD 1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T17S R29E NWNE 330FNL 1880FEL		9. API Well No. 30-015-42468
		10. Field and Pool, or Exploratory SWD;WOLFCAMP-CISCO/96136
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Production Start-up
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

This is an after-the-fact Completion NOI submitted in order to comply with APD COA's that completions/production were unaware of at the time of completing the well. The Completion Procedure is as follows:

- 1)Run GR-CBL-CNL from CIBP @ 8000? to surface.
 - 2)Trip in hole with 6 1/8? bit and drill collars on 2 7/8? tubing to CIBP @ 8000?. Displace hole with new 14 ppg mud. Drill out CIBP and push 100? below 7? casing shoe (7? 29# HCL-80 set at 8370?).
 - 3)Check for flow & lay tubing down. Ru up lubricator and run 7? nickel plated Lok-set packer on wireline (Packer accessories ? on-off tool with profile nipple. Below packer run a pump out plug 6000 psi pin on a 2 7/8? x 6? extension below the packer).
- Note: Run a profile nipple to accommodate the largest blanking plug that is designed for running

**SUBJECT TO LIKE
APPROVAL BY STATE**OCD 12/1/15
Accepted for record
NMOCD**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct. Electronic Submission #322981 verified by the BLM Well Information System For APACHE CORPORATION, sent to the Carlsbad	
Name (Printed/Typed) REESA FISHER	Title SR STAFF REGULATORY ANALYST
Signature (Electronic Submission)	Date 11/09/2015
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
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 _____
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.	

ACCEPTED FOR RECORD

NOV 10 2015

BUREAU OF LAND MANAGEMENT

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #322981 that would not fit on the form

32. Additional remarks, continued

and setting inside 2 7/8" tubing not 4" tubing.

4) Set packer 100' feet from 7" casing shoe.

5) Trip in hole with 2 7/8" tubing open ended and gently tag on off tool. Displace hole with 10ppg brine packer fluid. Lay down tubing.

6) Run 4" Duo lined tubing with on-off tool. Space out and Latch on-off tool with 4" tubing in 18,000 to 23,000# compression. Land tubing. Test annulus. Rig up lubricator.

7) Retrieve blanking plug. Pressure 4" tubing to 2000 psi and pump out plug (Pin ruptures with 4000 psi fluid hydrostatic plus 2000 pump pressure = 6000 psi). If unable to pump out plug chemically cut off 6" extension.

8) Flow back mud until all mud is recovered.

9) Run 4 Point injectivity test at 1, 2, 3 & 4 BPM pumping 25 barrels 10PPG brine at each flow rate.

10) File injection report and place on injection as soon as approval is received.

Conditions of Approval

**Apache Corporation
Barnsdall - 01, API 3001542468
T17S-R29E, Sec 27, 330FNL & 1880FEL
November 10, 2015**

1. Subject to like approval by the New Mexico Oil Conservation Division.
2. Notify BLM 575-200-7902 Eddy Co. as work begins. Some procedures are to be witnessed. If there is no response, call 575-361-2822, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
3. **Perform a charted casing integrity test** of 1841psig minimum from 8320' to surface. Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 25 to 85 per cent of its full range. **Verify all annular casing vents are plumbed to the surface and open during this pressure test. Call BLM 575-200-7902 and arrange for a BLM witness of that pressure test.** Include a copy of the chart in the subsequent sundry for this workover.
4. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
5. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 8250 to top of cement taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email.**
6. **Do not exceed the approved SWD-1379a injection pressure of 1540psig for stimulation operations or injection tests.**
7. Surface disturbance beyond the existing pad shall have prior BLM approval.
8. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
9. Functional H₂S monitoring equipment shall be on location.
10. 3000 (3M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.

11. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
12. **The operator shall provide evidence that oil and gas production from the injection zone is not commercial. Provide statements with evidence that paying quantities of hydrocarbons are not produced when the well has a pumped off fluid level. A minimum of 1000 barrels is to be withdrawn from the proposed disposal formation after any recent stimulation load volumes have been recovered. A report on ten samples from the last 200bbls analyzed for hydrocarbons by a reputable laboratory, a copy of the well's mudlog, and an estimated insitu water salinity based on copies of open hole logs are to be offered as evidence. BLM agreement is to be obtained prior to completion as a disposal well.**
13. Class II (production water disposal) wells will not be permitted Stimulation Pressures or "Injectivity Tests" that exceed the NMOCD/BLM generic frac pressure which is: $.2 \times \text{ft depth to the topmost injection or } 50\text{psig}$ below the frac point as clearly indicated by a BLM accepted "Step Rate Test".
14. A request for increased wellhead pressures is to be accompanied by a "Step Rate Test:" that is to clearly indicate any requested wellhead pressure is $+50\text{psig}$ below frac pressure for the wellbore's disposal formation. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
15. The subsequent report is to include workover stimulation injection pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).
16. Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> (email pswartz@blm.gov for instructions) describing all wellbore activity and the Mechanical Integrity Test. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer, and an in line tubing check valve below the packer or between the on/off tool and packer. The setting depths and descriptions of each are to be included in the subsequent sundry. File intermediate Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
17. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.
18. Submit the BLM Form 3160-4 **Recompletion Report** for operations that change/add formations or wellbore casing integrity within 30 days of the date all BLM approved procedures are complete. Attach a NMOCD Form C – 102.
19. Submit a BLM Form 3160 – 5 indicating the date of 1st injection. Include rates and pressures.

20. Approval, if granted, will be for disposal of water produced from the lease, communitization, or unit agreement of this well only. Disposal fluid from another operator, lease, communitization, or unit agreement require BLM surface right-of-way agreement **approvals** and if applicable, authorization from the surface owner.
21. Disposal of water from another operator requires that the well be designated as a commercial well and BLM surface right-of-way agreement **approvals**.
22. If the well is to receive off-lease water or commercial disposal, the operator shall provide proof of surface right-of-way approval prior to injection.
23. Enclose a site security diagram for the water disposal facility upstream of this well. Document the lease name and the lease number of the source(s) of production water disposed to that facility with the diagram.

An inactive/shut-in well bore is a non-producing completion that is capable of "beneficial use" i.e. production in **paying quantities** or of service use.

24. Submit evidence to support your determination that the well has been returned to active "beneficial use" for BLM approval on the Sundry Notice Form 3160-5 within 90 days of this sundry's approval date.
25. Should "beneficial use" not be achieved submit for BLM approval a plan for plug and abandonment.

Well with a Packer - Operations

- 1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established.
- 2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test. An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
- 3) Document the pressure test on a one hour full rotation chart recorder (calibrated within the last 6 months) registering within 25 to 85 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.

- 4) Make arrangements 24 hours before the test for BLM to witness. In Eddy County email Paul R. Swartz pswartz@blm.gov or phone 575-200-7902, if there is no response, 575-361-2822. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number
- 5) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, and an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry.
- 6) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
 - a) Approved injection pressure compliance is required.
 - b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
 - c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
- 7) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 8) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
- 9) A "Best Management Practice" is to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level above the casing vent is necessary to achieve this goal.
- 10) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
- 11) Excessive (+5 bbls/month) gain or loss of annular fluid volume requires notification within 24 hours. Cease injection and maintain production casing and tubing pressure near Opsia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
- 12) Submit a (BLM Form 3160-5 subsequent report (daily reports) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> (email pswartz@blm.gov for operator setup instructions) describing all wellbore activity and Mechanical Integrity Test as per item 1) above. Include the date(s) of the well work, and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off equipment just above the packer. The setting depths and descriptions of each are to be included in the subsequent sundry.

Access information for use of Form 3160-5 "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.