

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Operator Copy

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.**

5. Lease Serial No. NMLC031695B
6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No.
8. Well Name and No. WARREN UNIT 31
9. API Well No. 30-025-24781-00-S2
10. Field and Pool, or Exploratory WARREN
11. County or Parish, and State LEA COUNTY, NM

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	
2. Name of Operator CONOCOPHILLIPS COMPANY Contact: RHONDA ROGERS E-Mail: rogersr@conocophillips.com	
3a. Address MIDLAND, TX 79710	3b. Phone No. (include area code) Ph: 432-688-9174
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 27 T20S R38E SWSE 660FSL 1980FEL	

**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 checked="" type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<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 recomplete 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 recompletion 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.)

ConocoPhillips would like to amend the NOI filed 5/24/14 for a csg repair using a liner. We want to change the size of the liner per attached procedure and attached 4.5" liner spec sheet.

**HOBBS OCD**

NOV 19 2014

RECEIVED

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #254715 verified by the BLM Well Information System For CONOCOPHILLIPS COMPANY, sent to the Hobbs Committed to AFMSS for processing by CHRISTOPHER WALLS on 09/08/2014 (14CRW0206SE)</b>	
Name (Printed/Typed) RHONDA ROGERS	Title STAFF REGULATORY TECHNICIAN
Signature (Electronic Submission)	Date 07/25/2014
<b>THIS SPACE FOR FEDERAL OR STATE OFFICE USE</b>	
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 <i>K</i>	
<div style="border: 2px solid black; padding: 5px; text-align: center;"> <b>APPROVED</b>  <b>NOV 13 2014</b>  <i>/s/ Chris Walls</i>  <b>BUREAU OF LAND MANAGEMENT</b> </div>	
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.	

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

NOV 19 2014



Warren Unit 31  
Run Liner  
API #30-025-24781

The subject workover consists of running a 4.5" liner, testing mechanical integrity, cleaning out and acid scouring the perforations. It is the intent of this job to run a full length liner, test the mechanical integrity of the wellbore, clean out the wellbore and stimulate by scouring the perforations with acid and sand. This well was last intervened back on 10/30/2013 to establish injection of approximately 500 BWPD and create uplift in hydrocarbon production.

#### PROCEDURE

**NOTE:** Prior to MI & RU of service unit, plan to order 11" x 4.5" casing hanger with a set of slips to hang 4.5" liner at least 4 weeks ahead of job execution. Wellhead modifications are needed to change current 11" x 9-5/8" casing head to accept the new hanger. The 2-3/8", 4.7#, J-55 IPC (TK99) tubing previously in this wellbore is located at the E.L. Farmer yard. Plan also to order 4.5", 13.5#, T-95 BTC casing from COP inventory. A MIT test will be required after the job is performed. Plan to contact a NMOCD representative to be on location to witness the MIT test.

1. MI & RU service unit. The following is a well file source summary of current well configuration (last well service: 10/2013):

Warren Unit 31 (30-025-24781)	Depth (RKB): ft.		
660 FSL & 1980 FEL, 27-20S-38E	(KB -GL: 8 ft.)		
Elev.: 3542 KB; 3534 GL	top	btm	
9-5/8", 36#, H-40	surface	1499	9/1/74: Cmt w/ 480 sx. Circ ??? sx (?? bbl) cmt to surface
7", 23#, K-55	surface	4803	9/20/74: Cmt w/ 750 sx. Circ ??? sx (?? bbl) cmt to surface
Completion Intervals (Gross):			
Blinebry	5807	5937	
Blinebry	5968	5995	
Blinebry	6044	6205	
Blinebry	6257	6262	
Blinebry	6275	6281	
Blinebry	6294	6303	
Blinebry	6319	6326	
Blinebry	6377	6382	
PBD	6468		
TD		7050	7/77/77: Driller TD 7050; ( 7/77/77: Logger TD 7777)

2. ND well. NU 11" x 2-7/8" BOP.

3. RIH w/ 2-7/8", L-80 WS & perforated sub. Displace hole w/ 10# brine. Well may have pressure under RBP. Close pipe-rams & release 7" RBP. Watch csg/tbg pressure to verify that well is in fact dead. POOH w/ 7" RBP set @ 5714 on WS.

4. Pick-up & RIH w/ WS & bit & scraper (7", 23#) to 6400. POOH.

5. RIH w/ WS & RBP & PKR. Set RBP @ 5800 (uppermost Blinbry perforation: 5807)

Circ well w/ fresh water. (7", 23# well capacity: 228 bbl; 182 bbl w/ 2-7/8" tbg)

Close pipe-rams & test RBP @ 2000# surface prs (equivalent to 7540# @ RBP; 1.3 psi gradient).

If RBP test is good, proceed to test casing above RBP @ 500# surface prs. If the casing string tests good, proceed to steps 14-31. If the casing test fails, isolate the leak with RBP & PKR. Upon finding of casing leak, notify engineer.

If casing leak interval is above 1600 (Top of Cement @ 1600 determined by Temperature Survey on 9/20/1974), then perform steps 6c-6i. If casing leak interval is below 1600, then perform step 7.

6.

- a. POOH w/ WS & RBP & PKR.
- b. Perforate 7", 23# csg @ 4 spf: 1550 (50 ft above TOC @ 1600).
- c. RIH w/ WS & PKR w/ 1 jt tail-pipe.
- d. Set PKR in compression w/ 20 pts @ 300 ft. above casing leak interval w/ EOT @ 30 ft. below this depth
- e. Open valve on 7" x 9-5/8" annulus
- f. Obtain pump-in rate w/ 10 bbl fresh water. If pump-in is successful, then perform/continue with steps 6g-6i. If pump-in is unsuccessful, then perform steps 6a-6i.
- g. Mix & pump 200 sx of Class C Cement with Econolite (~50 bbl)
- h. Displace cmt w/ 50 bbl fresh water (2 bbl in excess of tbg capacity to EOT).
- i. SD 4 hrs.

7. **NOTE: This step is only to be performed if casing leak interval is below 1600.**

- a. Set RBP 100 ft. below the casing leak interval. Spot 20 ft. of sand on top of RBP.
- b. RIH w/ cement retainer. Set cement retainer 50 ft. above the casing leak interval. Establish rate & pressure. Communicate the results to engineer.
- c. Displace class C cement to cement retainer. (tubing capacity: .0058 bbl/ft.)
- d. Sting out of retainer. Circ bottoms up. Wait on cement to cure.

8. RU reverse unit.

9. Pick-up & RIH w/ 6-1/8" bit, 4: 6-1/4" DC & 2-7/8", L-80 WS.

10. Drill out cement retainer (if utilized) & cement.

11. Circ well 2 hrs prior to POOH.
12. POOH w/ WS. LD DC & bit.
13. Proceed to pressure test the casing by pressuring up to 550# surface prs for 30 min.  
  
If the casing test fails, communicate the results to engineer and then perform steps 14-31 (liner and acid job).
14. If RBP is utilized,  
RIH w/ WS & retrieve RBP.  
POOH w/ tbq. LD RBP.  
  
Otherwise,  
RIH w/ WS & 7" 10K rated CIBP & PKR. Set CIBP @ 5800 (uppermost Blinbry perforation: 5807)  
  
Circ well w/ fresh water. (7", 23# well capacity: 228 bbl)  
  
Close pipe-rams & test CIBP @ 1500# surface prs (equivalent to 7540# @ CIBP; 1.3 psi gradient).  
  
If CIBP test is good, unset PKR & POOH. LD PKR.
15. Change out 2-7/8" BOP rams to 4.5" BOP rams. PU test plug & test BOP @ 750# surface prs.
16. Haul in 6000' (~150 jts @ 40' jt length) of 4.5", 13.5#, T-95 BTC casing from COP Inventory.
17. PU 4.5" float shoe, 2 jts of 4.5", 13.5#, T-95, 4.5" float collar & 4.5", 13.5#, T-95 BTC casing to surface.
18. Ensure that 9-5/8" x 7" csg valve is closed. Establish circulation through 7" head. Verify returns (fluid in vs. fluid out). Mix & pump cement. Pump 90 bbl of fresh water followed by 500 sx of Class C Cement with Econolite.
19. When cement reaches surface, close csg head valve & open 9-5/8" x 7" annulus.
20. Drop wiper plug. Displace cement w/ fresh water to float collar & bump plug. After the plug is bumped, attach pump line to 7" x 4.5" csg valve & apply 100# surface prs. If cement can be pumped at that pressure, pump 300 sx of Class C Cement with Econolite. Wait on cement to cure for at least 24 hrs.
21. ND BOP. Install a new set of slips. Cut 4.5", 13.5#, T-95 BTC casing off & hang on slips.
22. NU 11" x 7-1/16" 5K rated tubing head. NU 7-1/16" x 2-7/8" BOP.
23. If cement is circulated to surface, do not run temperature survey. If cement is not circulated to surface, then  
  
RU 5K rated Lubricator w/ hydraulic pack off. RIH w/ temperature survey to determine the top of cement. Communicate the results to Jaynesh Shah (432-257-5142). ROH. LD Lubricator.
24. Pick-up & RIH w/ 3-3/4" bit, 3: 3-1/2" DC & 10 stands of 2-7/8", L-80 WS.  
  
Close pipe-rams & test csg @ 1000# surface prs (Do not exceed 80% of burst pressure: 3848#)  
  
Drill out float collar, float shoe & CIBP @ 5800. Clean out to 6468.

Circ well 2 hrs prior to POOH.

POOH w/ WS. LD DC & bit.

25. RIH w/ WS & PKR. Hydro-test up to 5000# while RIH. Set PKR @ 5800 in compression w/ 20 pts.

Load annulus up to 500# & monitor it during the job.

RU Petroplex. Test surface lines: 5500#.

Install ball catcher.

26. Acidize perforations w/ 10000 gal (~300 bbl) 15% NE Fe HCl w/ 300 (1.3 sg) ball sealers:

**NOTE: Do not gel acid until just prior to pumping the job to ensure that there is no bacteria build-up in the frac tanks.**

Establish rate on water & then switch to acid.

Pump 2000 gal 15% HCl.

Pump 1000 gal gelled brine water containing 1000 lb 100 mesh sand. Drop 50 bs in the last 100 gallons of gel

Pump 2000 gal 15% HCl.

Pump 1000 gal gelled brine water containing 1000 lb 100 mesh sand. Drop 50 bs in the last 100 gallons of gel

Pump 2000 gal 15% HCl.

Pump 1000 gal gelled brine water containing 1000 lb 100 mesh sand. Drop 50 bs in the last 100 gallons of gel

Pump 2000 gal 15% HCl.

Pump 1000 gal gelled brine water containing 1000 lb 100 mesh sand. Drop 50 bs in the last 100 gallons of gel

Pump 2000 gal 15% HCl.

Flush

to bottom perforations

Allow balls to surge.

Record ISIP, 5, 10 & 15 min psi.

The well work will require the following acid volumes:

Acid: 10000 gal. 15% NE Fe HCl

2 gal/M I-8 Inhibitor

2 gal/M EP-3 Non-Emulsifier

5 gal/M FEDX Iron Reducing Agent

4 gal/M FEBX Iron Reducing Agent Activator

Sand: 4,000 lb 100 Mesh Sand

Brine: 1 load of 10# Brine Water mixed w/ 50# Petro Gel

Diverter: 300 (1.3 sg) Ball Sealers

27. RD & release Petroplex. SION.

28. Open well and flow back until dead.

29. POOH w/ 2-7/8", L-80 WS & PKR.

30. Downhole equip as per attached.

	Depth (RKB): ft	
	(KB - GL: 8 ft.)	
Tubing:	top	btm
2-3/8", 4.7#, J-55 IPC (TK99)	surface	5700
2-3/8", 4.7#, J-55 IPC (TK99) Tbg Marker Sub	5700	5710
2-3/8", 4.7#, J-55 IPC (TK99)	5710	5770
On/Off Tool w/ 1.875" XN Profile	5770	5771
Injection PKR (2-3/8" x 4.5", 13.5#) (Set in tension w/ 12 pts)	5771	5780
Note:		
upr perf 5807		
btm perf 6382		

- ← **BLM**
31. Perform a MIT test. Plan to contact a NMOC representative to be on location to witness the MIT test. If the well passes MIT test, send the original test chart to Rhonda Rogers (432-967-5235). Attach a copy of the test chart in WellView.
32. Place well on water injection.
33. After 30 days of water injection, obtain an injection survey on the well.



## Casing and Tubing Performance Data

Choose pipe size, wall thickness and steel grade to view API connection options and performance data.

Size:  Wall:  Grade:  Connection:  Unit:

### Pipe Body Data

#### GEOMETRY

Nominal OD	4.500 in	Wall Thickness	0.290 in	API Drift Diameter	3.795 in
Nominal Weight	13.50 lbs/ft	Nominal ID	3.920 in	Alternate Drift Diameter	n.a.
Plain End Weight	13.05 lbs/ft	Nominal Cross Section	3.836 sq in		

#### PERFORMANCE

Steel Grade	T95	Minimum Yield	95,000 psi	Minimum Ultimate	105,000 psi
Body Yield Strength	364,000 lbs	Internal Yield Pressure	10,710 psi	Collapse Pressure	9,660 psi

### Connection Data

#### GEOMETRY

Regular OD	5.000 in	Threads Per Inch	5	Make-Up Thread Turns	0.5
------------	----------	------------------	---	----------------------	-----

#### PERFORMANCE

Steel Grade	T95	Minimum Yield	95,000 psi	Minimum Ultimate	105,000 psi
Joint Strength	374,000 lbs	Internal Pressure Resistance	10,710 psi		

[Tenaris Hydril Premium Connections](#)

[Print](#)

[Contact Us](#)

## **Conditions of Approval, Template**

**ConocoPhillips Co.**

**Warren Unit - 31**

**API 3002524781**

**November 13, 2014**

1. **4-1/2" liner shall be installed and cemented as proposed. If cement does not circulate to surface notify the BLM.**
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. Notify BLM 575-393-3612 Eddy Co. as work begins. Some procedures are to be witnessed. If there is no response leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
4. Surface disturbance beyond the existing pad shall have prior approval.
5. 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.
6. Functional H<sub>2</sub>S monitoring equipment shall be on location.
7. 2000 (2M) 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.
8. 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.

### **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).



- 3) 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. 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 Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number
- 5) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. NMOCD is to retain the original recorded MIT chart.
- 6) 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.
- 7) **Submit the original subsequent sundry with three copies to BLM Carlsbad.**
- 8) 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.
- 9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
- 10) 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.

**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](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.