

**RECEIVED**  
 Form 3160-3 (April 2004)  
**MAR 08 2013**  
**NMOC D ARTESIA**

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED  
 OMB No. 1004-0137  
 Expires: March 31, 2007

**SUBSIDIARY 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  
 Oil Well  Gas Well  Other

2. Name of Operator  
 BOPCO, L. P.

3a. Address  
 P. O. Box 2760 Midland, TX 79702

3b. Phone No. (include area code)  
 432-683-2277

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 SWNE, UL G, 2550' FNL, 1600' FEL, Sec 33, T24S-R30E, Lat:N32.174344, Long:W103.388219  
 1500' FSL, 300' FEL, Sec 29, T24S-R30E, Lat:N32.185394, Long:W103.89531

5. Lease Serial No.  
 BHL:NMLC 069627A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
 Poker Lake Unit NMNM 71016X

8. Well Name and No.  
 Poker Lake Unit 364H

9. API Well No.  
 30-015-40800

10. Field and Pool, or Exploratory Area  
 Corral Canyon NE, Delaware

11. County or Parish, State  
 Eddy, New Mexico

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 type="checkbox"/> Other _____
	<input checked="" 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 recomplate 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.)

BOPCO, L.P. respectfully requests changes to the 8 pt. drilling program so that oil based mud can be utilized to drill out from the surface casing. Please see attached summary of BOPCO, L.P.'s revised plan and oil based mud contingency plan.

**Attachments:**

- 1) Drilling plan changes
- 2) Oil based mud safety contingency plan
- 3) Wellbore diagram

~~Wellbore diagrams and MW curves for wells that were drilled with two casing strings and OBM~~  
 Not Required

Accepted for record  
 NMOC D TES  
 B/11/2013

**SEE ATTACHED FOR  
 CONDITIONS OF APPROVAL**

**APPROVED**  
*Ed Fernandez*  
**MAR 5 2013**  
 BUREAU OF LAND MANAGEMENT  
 CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct  
 Name (Printed/Typed) Jeremy Braden Title Engineering Assistant

Signature *Jeremy Braden* Date 2-28-13

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by *Ed Fernandez* Title PETROLEUM ENGINEER Date \_\_\_\_\_

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.

(Instructions on page 2)

BOPCO, L.P. respectfully requests permission to amend the casing program for Poker Lake Unit #364H to eliminate the salt isolation casing string. This will be accomplished by drilling a 12-1/4" surface hole and setting a 9-5/8", 40 ppf, J-55, LT&C surface string at approximately 840'. The 9-5/8" surface casing will be cemented to surface.

BOPCO, L.P. requests permission to amend the drilling mud program BELOW THE SURFACE CASING for Poker Lake Unit #364H. The 9-5/8" surface casing shoe will be drilled out with and 8-3/4" bit using an oil-based mud (OBM) system. The 8-3/4" hole will be drilled to an approximate depth of 7,587' MD (7,384' TVD) and the hole size reduced to 6-1/8" for the remainder of the wellbore. A tapered 7" LTC x 4-1/2" BTC/LTC production string will be run and the 7" portion of the production string will be cemented to surface.

BOPCO, L.P. will have auxiliary equipment in place and a 24 hour mud engineer to minimize the risk of an OBM spill. In the event of a spill while drilling OBM BOPCO, L.P. has a spill contingency plan that is attached.

**Revised Casing Program:**

Type	Interval (MD)	Hole Size
20" (already set)	0-120'	26"
9-5/8", 40 ppf, N-80, 8rd, LTC or 9-5/8", 40 ppf, J-55, 8rd, LTC	0-840'	12-1/4"
7", 26 ppf, N-80, Buttress or 8rd LTC	0-7,587'	8-3/4"
4-1/2", 11.6 ppf, HCP-110, Buttress or 8rd LTC	7,587' – 12,858'	6-1/8"

**Casing Program Safety Factors:**

Type	Tension	Collapse	Burst
9-5/8", 40 ppf, N-80, 8rd, LTC	21.93	7.59	2.91
9-5/8", 40 ppf, J-55, 8rd, LTC	18.75	6.30	2.00

\*\*7" casing and 4-1/2" completion system safety factors remain unchanged.

**Cementing Program: Please see below for updates to cement program**

9-5/8" Surface (100% excess)

Lead Volume: *138 sks*

Lead Details: 13.5 ppg, 1.74 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 9.14 gal/sk

Top of Lead: Surface

Lead Slurry: Class "C" Cement: 4% Bentonite + 2% Calcium Chloride + 0.125 lb/sk Celloflake + 0.25 lb/sk Defoamer

Tail Volume: *233 sks*

Tail Details: 14.8 ppg, 1.68 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 6.3 gal/sk

Top of Tail: 350'

TOC: Surface

Tail Slurry: Class "C" Cement 1% Calcium Chloride + 0.125 lb/sk Celloflake + 0.25 lb/sk + 0.5 lb/sk Defoamer

7" 1st Intermediate (caliper log hole volume + 30% excess)

1st Stage

Lead Volume: 140 sacks

Lead Details: 10.5 ppg, 2.96 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 15.86 gal/sk

Top of Lead: +/- 5,000' (DV Tool)

Lead Slurry: Tuned Light Cement + 0.75 lbm/sk CFR-3 + 1.5 lbm/sk Salt + 0.25 lbm/sk Poly-E-Flake

Tail Volume: 100 sacks

Tail Details: 12 ppg, 2.02 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 11.43 gal/sk

Top of Tail: 6,848' (KOP)

Tail Slurry: VariCem H + 0.5% Halad-344 + 0.2% CFR-3

2nd Stage

Lead Volume: 344 sacks

Lead Details: 10.5 ppg, 2.96 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 15.86 gal/sk

TOC: Surface

Lead Slurry: Tuned Light + 0.3 lb/sk CFR-3 + 1 lb/sk Salt + 0.125 lb/sk Pol-E-Flake

Tail Volume: 100 sacks

Tail Details: 12 ppg, 2.03 ft<sup>3</sup>/sk yield, H<sub>2</sub>O 11.47 gal/sk

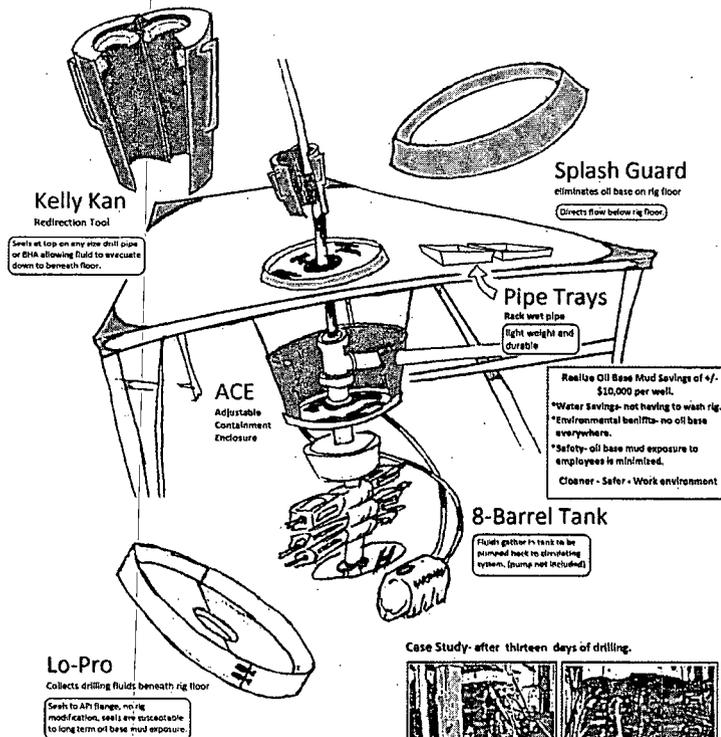
Top of Tail: 4,500'

Tail Slurry: VariCem H + 0.5% Halad-344 + 0.3% CFR-3 + 0.5% Econolite (powder)

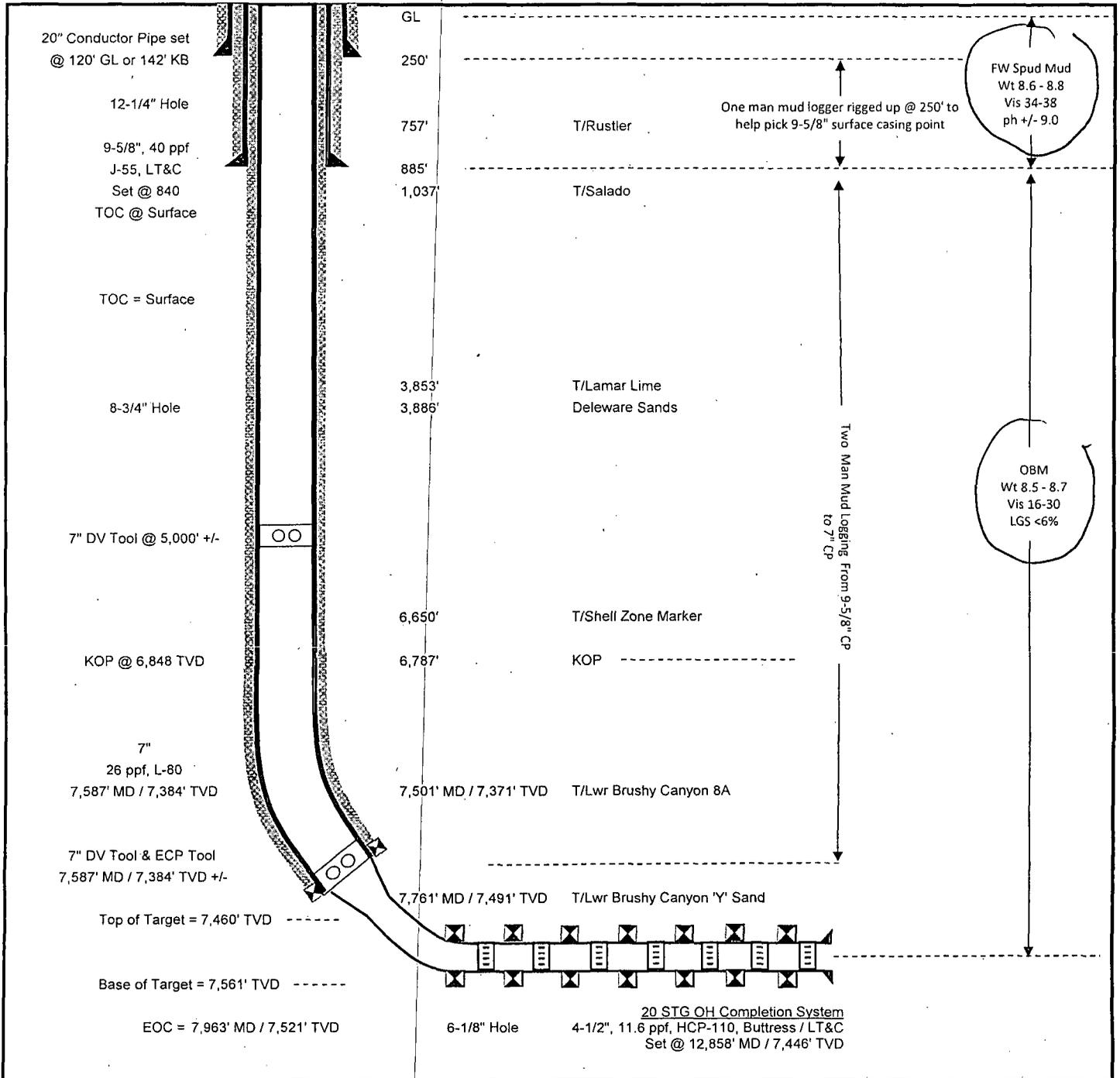
## Oil-Based Drilling Mud Contingency Plan Latshaw Rig 4

This Site Specific Contingency Plan was developed to address the identified risks associated with BOPCO, LP's drilling and production operations. The plan discusses steps to be taken to minimize or prevent spills from occurring during drilling operations.

BOPCO is currently drilling with Latshaw Rig 4 and will be using an oil-based mud to eliminate the salt casing string and improve drilling efficiency. To ensure the oil based mud is completely contained while drilling these wells, BOPCO will employ a Zero Spill Technology which will ensure all oil based mud will be contained, captured, and introduced back into the circulating system. This technology will be provided by the company Katch Kan USA. The rig will employ the light weight Kelly Kan, which redirects all the drilling fluid down through a rotary table. This product comes equipped with seals to prevent the fluid from escaping from the top. The fluid is drained downward from the bottom of the Kelly Kan. A Katch Kan Splash Guard will also be used to prevent a fluid spill from the rotary table onto the rig floor. After draining through the rotary table, the fluid is directed to the Lo-Pro Containment system. The containment tank, which holds eight barrels, will be monitored regularly and the fluid will be pumped back into the active mud system, when necessary. Katch Kan USA will also provide pipe trays for setback areas to collect all fluid that drains out of the drill string and line pipe trays for rig personnel to use to capture all the stray fluid produced while breaking mud, cement, or hydraulic lines during rig operations. A mud vacuum system will be rigged up to remove the oil-based mud from pipe trays and any other area where the mud accumulates. All rig personnel will be properly trained on how to use the Zero Spill System and all the system components by Katch Kan USA before the use of the system.



**BOPCO, L.P.**  
**Poker Lake Unit #364H**  
**Poker Lake, South (Delaware)**



FIELD: Poker Lake, South (Delaware)		Lease Name: Poker Lake Unit #364H	
LOCATION: 2,550' FNL & 1,600' FEL, Sec 33, T24S, R30E		Elevation: GL 3,302', KB 3,324' (est)	
COUNTY: Eddy County, NM		Proposed Pilot hole TD : None	
BHL: 1,500' FSL & 300' FWL, Sec 29, T24S, R30E		Proposed Horizontal Hole: 12,858' MD, 7,480' TVD, 314.0° AZ from surface	
Angle @ KOP and depth: 0 deg	KOP TVD: 6,787'	Build Rate: 10 deg/100', Max Angle: 90.40 deg, Horizontal Displacement: 5,713'	
Drilling Company & Rig: Latshaw #4		Approved By:	
Prepared by: CV Last Revision Date: February 26, 2013		Approval Date:	

**Conditions of Approval**  
**Poker Lake Unit 364H**  
**Sundry dated 2/28/2013 - 30-015-40800**  
**BOPCO, L.P.**  
**March 5, 2013**

**Original COA Applies with the following changes:**

**A. CASING**

1. The 9-5/8 inch surface casing shall be set **at approximately 885 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If the salt is encountered, set the casing 25 feet above the top of the salt.**

**Operator has revised the cement program to have 138 sacks of the original lead slurry and 233 sacks of the original tail slurry proposed for the 13-3/8" casing. Based on the 20" conductor already set at 120', this calculates to 28% excess.**

- 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. **In addition, if cement does not circulate, the operator shall run a CBL after the remedial cementing operation to verify bond since the well is in medium cave/karst.**
  - 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 7 inch x 4-1/2" production casing is:  
(A 4-1/2" completion system with open hole packers will be run in the producing lateral)
    - a. First stage from ECP/DV tool at base of 7":
      - Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
    - b. Second stage above DV tool:
      - Cement to circulate. If cement does not circulate, contact the appropriate BLM office.

3. 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. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch surface casing shoe shall be **3000 (3M) psi. Operator installing a 5M system – all components shall be present and tested. Operator will test to 3000 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, 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.**
  - c. The results of the test shall be reported to the appropriate BLM office.
  - d. 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.**

- e. 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.

### **C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling out of the surface shoe and shall be used until production casing is run and cemented.

**The operator shall monitor the mud system for possible gas kicks until such time that the production casing is cemented as the proposed casing program restricts when the BOP can be closed without creating an underground blowout. An underground blowout is considered an undesirable event.**

Operator shall report any mud spill to the BLM within 12 hours of the spill.

**EGF 030513**