MAC

OPERATOR'S COPY

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **NM 064894**

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.:

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: **Poker Lake Unit #306** (306402)

2. Name of Operator: **BOPCO, L. P.** (260737)

9. API Well No.: 30-015-38459

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

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

10. Field and Pool, or Exploratory: **Corral Canyon S(Dela, BS, Avln Sd)** CORRAL CANYON; BONE SPRING, SOUTH (13354)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: **1650' FSL, 2000' FWL, Lat N32.098083, Lon W103.905089** (U/L K)

At proposed prod. zone:

11. Sec., T. R. M. or Blk. and Survey or Area: **Sec 29, T25S, R30E, MER NMP**

14. Distance in miles and direction from nearest town or post office*: **10 miles southeast of Malaga, NM**

12. County or Parish: **Eddy County**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
640'	2880	40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
1000'	7700'	COB000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3149' GL	01/15/2009	14 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Annette Childers	Annette Childers	11-25-08

Title: Administrative Assistant

Approved by (Signature)	Name *(Printed/Typed)*	Date
/s/ Jesse J. Juan		1/28/2009
Title: FIELD MANAGER	**Office: CARLSBAD FIELD OFFICE**	

Application approval 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.
Conditions of approval, if any, are attached. APPROVAL FOR TWO YEARS

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)

KZ 02/13/2011

Carlsbad Controlled Water Basin

RECEIVED

FEB 04 2009

BOPCO WTD PRODUCTION

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

Surface casing to be set into the Rustler below all fresh water sands.
Production casing will be cemented using Schlumberger Litecrete (10.5 ppg & 10.2 ppg) with cement circulated to the surface. Drilling procedure, BOP diagram, anticipated tops and surface plans attached.

This well is located outside the Secretary's Potash area and outside the R-111 Potash area. There are no potash leases within 1 mile of the location.

This well is an orthodox location.

Closed Loop Drilling System will be used.

B O P C O, L.P.

P. O. Box 2760
Midland, Texas 79702

432-683-2277 FAX-432-687-0329

November 25, 2008

Bureau of Land Management
Carlsbad Field Office
620 East Green Street
Carlsbad, New Mexico 88220-6292

Gentlemen:

BOPCO, L.P. respectfully request exception to the Prairie Chicken timing restrictions for this location - 1650' FSL, 2000' FWL, of Section 29, T25S, R30E, Eddy County, New Mexico (Poker Lake Unit #306).

Sincerely,

Gary E. Gerhard,
Drilling Engineer

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

NAME OF WELL: Poker Lake Unit #306

LEGAL DESCRIPTION - SURFACE: 1650' FSL, 2000' FWL, of Section 29, T-25-S, R-30-E, Eddy County, NM.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3169' (est) GL 3149'

FORMATION	ESTIMATED TOP FROM KB	ESTIMATED SUBSEA TOP	BEARING
T/Rustler	789'	+2377'	
B/Rustler	1649'	+1517'	Barren
T/Salt	1689'	+1477'	Barren
B/Salt	3209'	-43	Barren
T/Lamar	3460'	-294'	Oil/Gas
T/Ramsey	3497'	-331'	Oil/Gas
T/L. Cherry Canyon	5634'	-2468'	Oil/Gas
T/L.Brushy Canyon	7144'	-3978'	Oil/Gas
T/Bone Spring	7364'	-4198'	Oil/Gas
T/Avalon	7504'	-4338'	Oil/Gas
TD	7700'	-4534'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS	Hole Size	PURPOSE	CONDITION
14"	0' - 40'	16"	Conductor	Contractor Discretion
8-5/8", 32#, J-55, 8RD, LT&C	0' - 814'	12-1/4"	Surface	New
5-1/2", 15.5#, J-55, 8RD, LT&C	0' - 6300'	7-7/8"	Production	New
5-1/2", 17#, J-55, 8RD, LT&C	6300' - 7700'	7-7/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
8-5/8", 32#, J-55, 8RD, LT&C	18.43	6.77	4.81
5-1/2", 15.5#, J-55, 8RD, LT&C	2.08	1.31	1.44
5-1/2", 17#, J-55, 8RD, LT&C	14.84	1.33	1.60

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure a that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PRODUCTION CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.25 design factor with anticipated maximum tubing pressure (3529 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure. The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A BOPE equivalent to requirements of Onshore Oil & Gas Order No. 2 – 3000 psi system (Diagram 1) will be nippled up on the surface casinghead. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 250 psig and 3000 psig by an independent tester.

a) Upon installation
b) After any component changes
c) Fifteen days after a previous test
d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 814'	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
814' - 5600'	Brine Water	9.8 -10.2	28-30	NC	NC	NC	9.5 - 10.5
5600' - TD	BW/Diesel	8.8 - 9.2	40	8	2	<100 cc	9.5 - 10.5

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

GR-CNL-LDT-AIT from TD to base of Salt (+/- 3209').
GR-CNL-CAL from base of Salt to surface.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT ← See COA

INTERVAL	AMOUNT SXS	FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE:						
Lead 0 – 514' (100% excess circ to surface)	275	514	35:65 Poz Class "C" + 6% D20 + 3% S1 + 5 pps D24 +0.125 pps D130	10.40	12.6	1.98
Tail 514' – 814' (100% excess)	200	300	Class "C" + 2% S1	6.33	14.8	1.34
PRODUCTION: Stage 1: Lead 5000' – 6000' (50% excess)	110	1000	Litecrete 39/61 (D961/ D124) + 2% bwob D153 + 0.05gps D604AM + 0.03 gps DM45 + 2ppg D24 + 0.04gpsD801	9.875	10.2	2.47
Tail 6000' – 7700' (50% excess)	230	1700	Litecrete 39/61 (D961/ D124)+ 2% bwob D153 + 0.05gps D604AM + 0.03 gps DM45 + 2ppg D24 + 0.04gpsD801	7.336	10.5	2.10
DV Tool @ 5000'						
Stage 2: Lead 0' – 4900' (50% excess)	510	4900	Litecrete 39/61 (D961/ D124) + 2% bwob D153 + 0.05gps D604AM + 0.03 gps DM45 + 2ppg D24 + 0.04gpsD801	9.825	10.2	2.37

POINT 6: TECHNICAL STAGES OF OPERATION - Cont'd -

INTERVAL	AMOUNT SXS	FILL	TYPE	GALS/SX	PPG	FT^3/SX
Stage 2: Tail 4900' – 5000' (50% excess)	19	100	Class C	6.33	14.8	1.34

E) DIRECTIONAL DRILLING

No directional services anticipated.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 3120 psi (max) or MWE of 8.4 ppg is expected. Lost circulation may exist in the Delaware Section from 3497'-7367'. No H_sS is anticipated.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

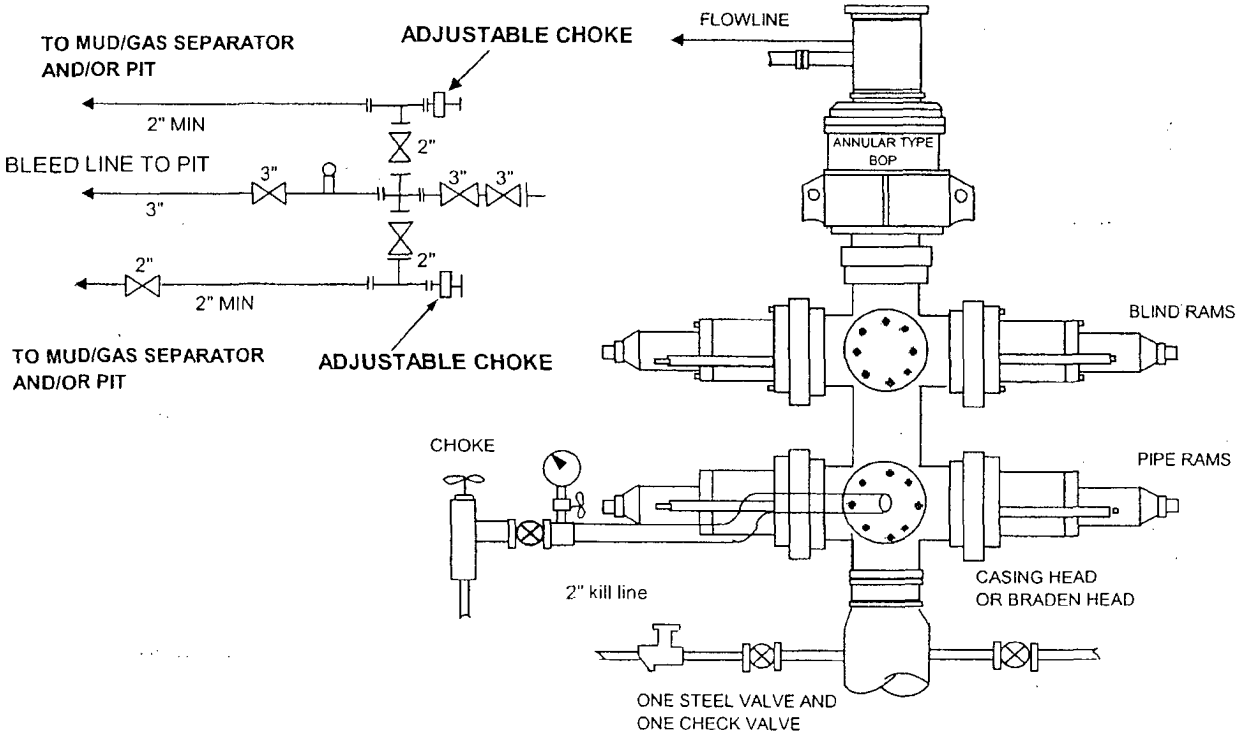
12 days drilling operations

14 days completion operations

GEG/mac
November 12, 2008

BEPCO, L. P.
3-M WP BOPE WITH 3-M WP ANNULAR

3 M CHOKE MANIFOLD EQUIPMENT-CONFIGURATION MAY VARY



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. One double gate Blowout preventer with lower pipe rams and upper blind rams, all hydraulically controlled.

B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.

C. All connections from operating manifold to preventers to be all steel hose or tube a mininum of one inch in diameter.

D. The available closing pressure shall be at least 15% in excess of that required with suffficient volume to operate (close, open, and re-close) the preventers.

E. All connections to and from preventers to have a pressure rating equivalent to that of the BOPs.

F. Manual controls to be installed before drilling cement plug.

G. Valve to control flow through drill pipe to be located on rig floor.

H. Chokes must be adjustable. Choke spool may be used between rams.

DIAGRAM 2