

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

RESUBMITTAL

Form C-101  
May 27, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

Operator Name and Address BEPCO, L.P. P. O. Box 2760 Midland, Texas 79702		OGRID Number 001801
		API Number 30 - 015-34317
Property Code 001796	Property Name Poker Lake Unit	Well No. 244
Proposed Pool 1 Nash Draw (Delaware, Bone Spring, Avalon Sd)		Proposed Pool 2

AUG 23 2007

OCD-ARTESIA

**Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	24S	30E		2290	FSL	100	FWL	Eddy

**Proposed Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

**Additional Well Information**

Work Type Code N	Well Type Code O	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 3195' GL
Multiple NO	Proposed Depth 7697'	Formation Delaware	Contractor Adobe Drilling	Spud Date 12/15/2007
Depth to Groundwater 150'		Distance from nearest fresh water well 2-1/2 miles		Distance from nearest surface water 6 miles
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume 11500 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input checked="" type="checkbox"/> Gas/Air <input type="checkbox"/>				
Closed-Loop System <input type="checkbox"/>				

**Proposed Casing and Cement Program**

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
14-3/4"	11-3/4"	42#	240'	200	Surface
11"	8-5/8"	32#	3547'	1000	1000' **
7-7/8"	5-1/2"	15.5 & 17#	7697'	900	3100'

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any Use additional sheets if necessary

SURFACE IS OWNED BY THE STATE OF NEW MEXICO. ATTACHED IS A DRILLING PROGNOSIS AND A BOP DIAGRAM.  
\*BEPCO, L.P. proposes to drill 10' into the salt section to insure all zones above the salt are penetrated. The casing will be set 10-20' above the total depth and cemented to surface.

\*\*This intermediate casing is a contingency string to be installed only if we encounter "free flowing sand" as was found in our Poker Lake Unit #217 located in section 19, T24S, R30E.

In Poker Lake Unit #217 this sand occurred at several depths (+1500', +1800', +1960', +2300') and we were only able to control it by "Mudding Up" with a high vis drilling fluid which with the resultant mud weight exceeded the low frac gradient in the Delaware Lower Brushy Canyon Sands. Therefore, the 11" casing is proposed in order to put this problem behind pipe and thereby allow for the drilling of the Delaware Sands with a fresh water low weight drilling fluid. If the flowing sand problem is not encountered the intermediate casing will not be run. Hole size will be reduced to 7-7/8" at 3550' and the production hole drilled with a brine water/ diesel emulsion mud. This drilling fluid has been used successfully on 37 wells drilled by BEPCO, L.P. in the Nash Draw (Delaware) Field.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

**OIL CONSERVATION DIVISION**

Approved by

**BRYAN G. ARRANT**

**DISTRICT II GEOLOGIST**

Printed name: Annette Childers

*Annette Childers*

Title:

Title: Administrative Assistant

Approval Date: **AUG 24 2007**

Expiration Date: **AUG 24 2008**

E-mail Address: machilders@basspet.com

Date: 8-22-07

Phone 432-683-2277

Conditions of Approval Attached ☐

DISTRICT I  
1626 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-34317	Pool Code 47545	Pool Name Nash Draw (Delaware, Bone Spring, Avalon Sd)
Property Code 001796	Property Name POKER LAKE UNIT	Well Number 244
OGRID No. 001801	Operator Name BEPCO, L.P.	Elevation 3195'

Surface Location

UL or lot No. L	Section 32	Township 24 S	Range 30 E	Lot Idn	Feet from the 2290	North/South line SOUTH	Feet from the 100	East/West line WEST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill N	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Refer to original</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>	
<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date Surveyed _____</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p>Certificate No. 7977</p>				<p><b>Basin Surveys</b></p>	

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Form C-102  
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OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
13360	DELAWARE	
Property Code	Property Name	Well Number
001796	POKER LAKE UNIT	244
OGRID No.	Operator Name	Elevation
001301	BASS ENTERPRISES PRODUCTION COMPANY	3195'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	24 S	30 E		2290	SOUTH	100	WEST	EDDY

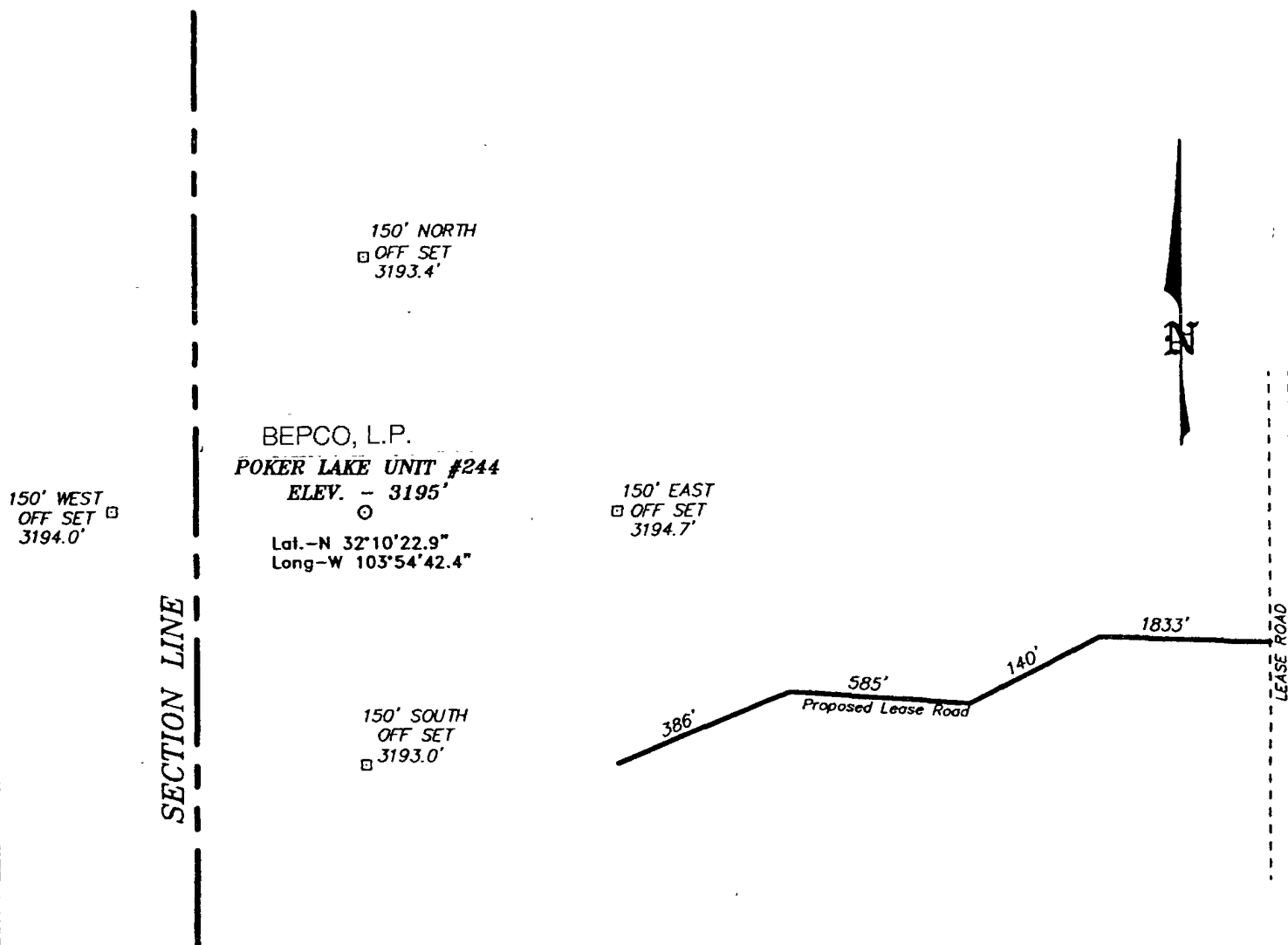
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
40	N								

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

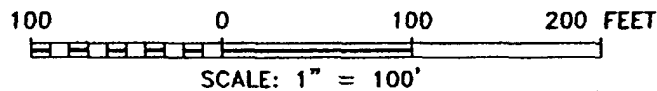
<p>LAT - N32°10'22.9" LONG - W103°54'42.4"</p> <p>162.55 acres</p> <p>162.60 acres</p> <p>162.78 acres</p> <p>162.73 acres</p>				<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>W.R. Dannels</i> Signature W.R. DANNELS Printed Name DIVISION DRILLING SUPT. Title 6-21-05 Date</p>	
				<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>JUNE 2, 2005</p> <p>Date Surveyed Signature of Seal of Professional Surveyor W.O. No. 5391 Certification No. Cory Jones 7977</p>	

SECTION 32, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 128 AND  
RAWHIDE ROAD, GO SOUTH FOR 10.2 MILES TO OLD  
WINDMILL; THENCE WEST FOR 1.2 MILE; THENCE  
SOUTHEAST FOR 1.8 MILE PAST A CATTLE GUARD;  
THENCE SOUTH FOR 0.6 MILE TO PROPOSED LEASE  
ROAD.



BEPCO, L.P.

REF: POKER LAKE UNIT No. 244 / Well Pad Topo

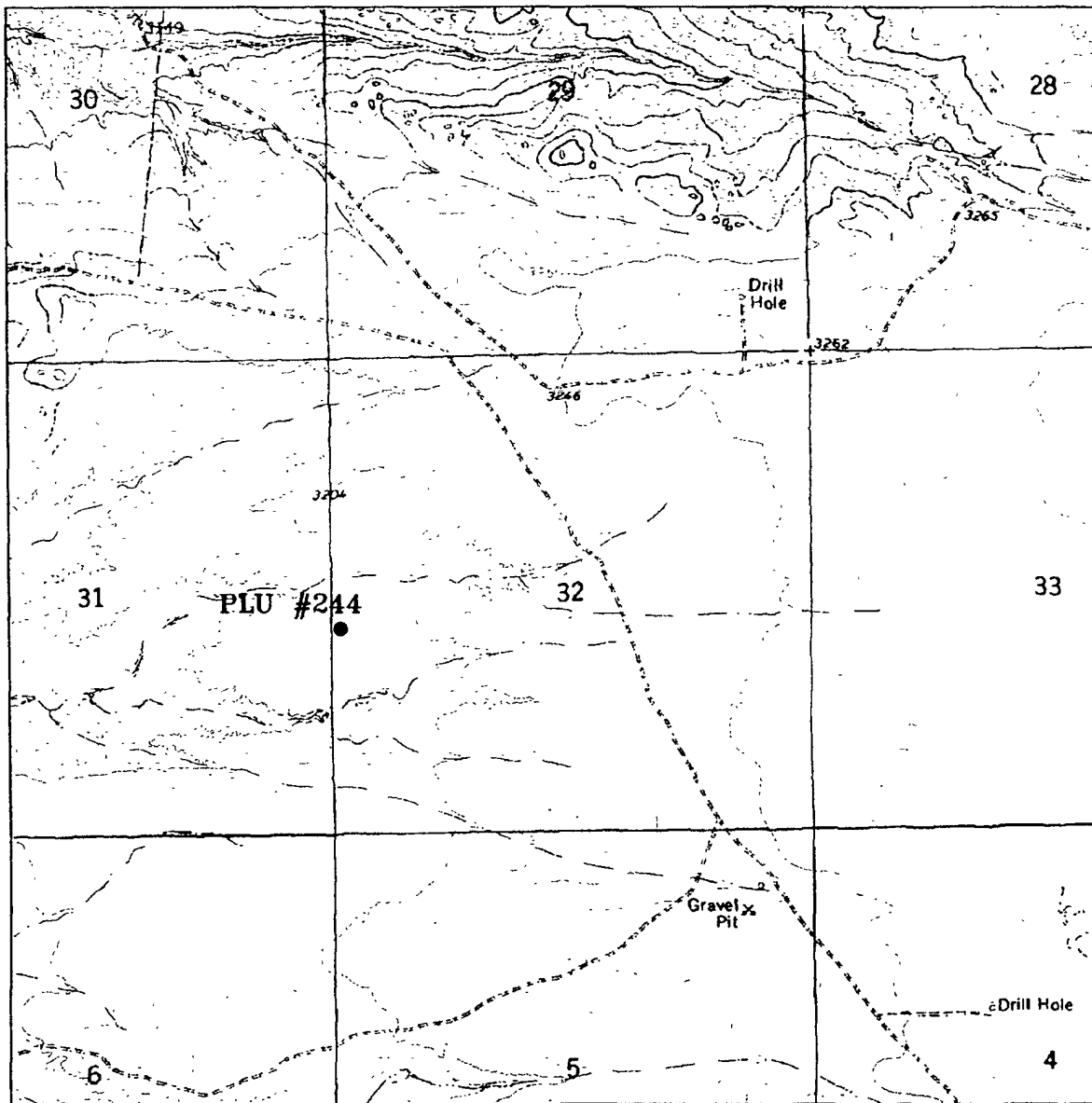
THE POKER LAKE UNIT No. 244 LOCATED 2290' FROM  
THE SOUTH LINE AND 100' FROM THE WEST LINE OF  
SECTION 32, TOWNSHIP 24 SOUTH, RANGE 30 EAST,

N.M.P.M. EDDY COUNTY NEW MEXICO

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

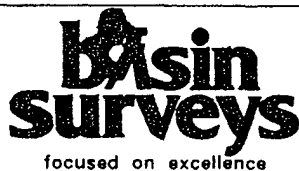
W.D. Number: 5301

Drawn By: M. COAD



# **POKER LAKE UNIT #244**

Located at 2290' FSL and 100' FWL  
 Section 32, Township 24 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

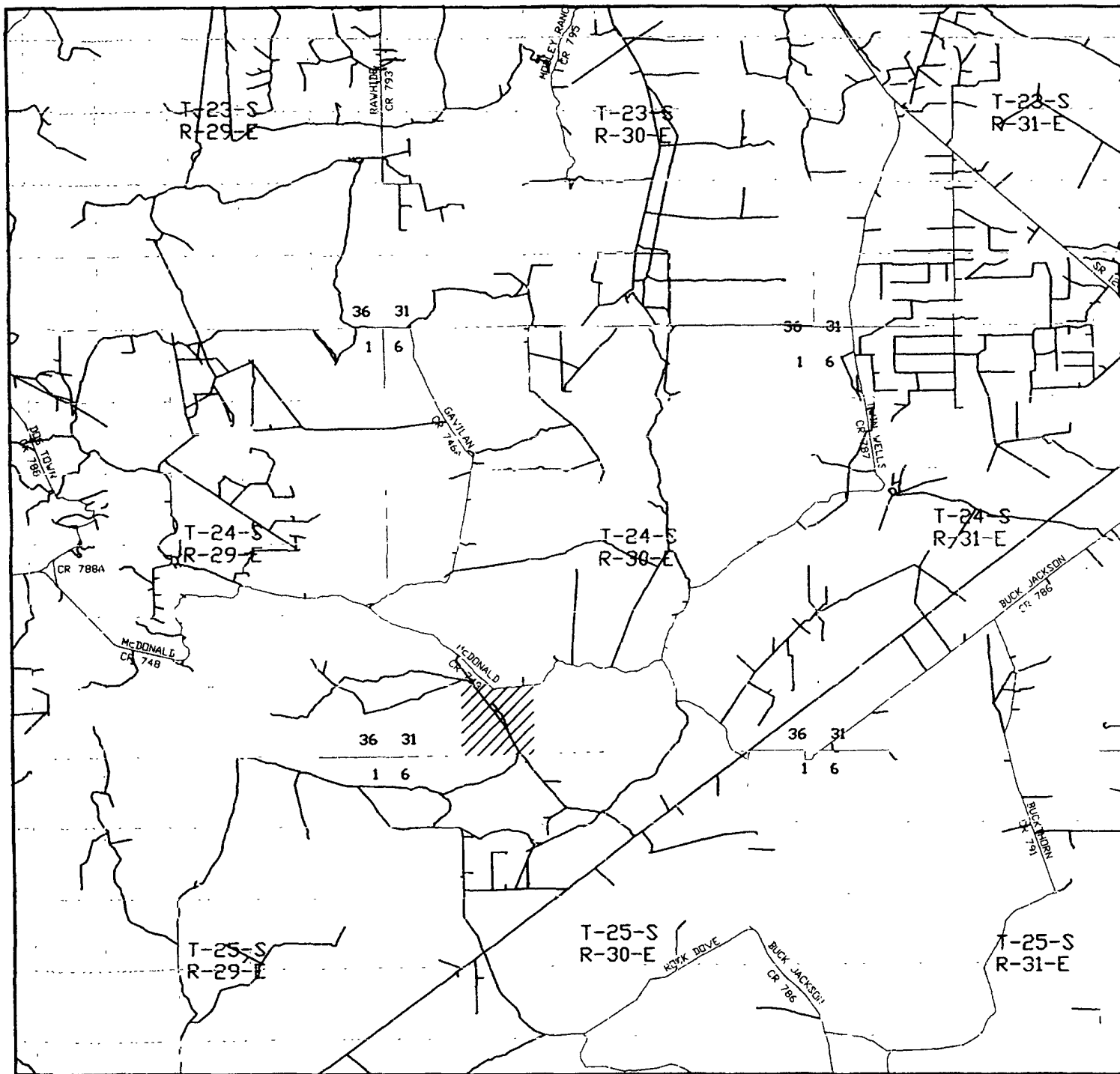
W.O. Number: 5391AA - KJG #7

Survey Date: 05-27-2005

Scale: 1" = 2000'

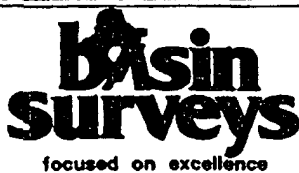
Date: 06-03-2005

**BEPCO, L.P.**



# **POKER LAKE UNIT #244**

Located at 2290' FSL and 100' FWL  
 Section 32, Township 24 South, Range 30 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

W.O. Number: 5391AA - KJG #7

Survey Date: 05-27-2005

Scale: 1" = 2 MILES

Date: 05-03-2005

**BEPCO, L.P.**

# EIGHT POINT DRILLING PROGRAM BEPCO, L.P.

**NAME OF WELL: POKER LAKE UNIT #244**

**LEGAL DESCRIPTION - SURFACE:** 2290' FSL & 100' FWL, Section 32, T-24-S, R-30-E, Eddy County, New Mexico.

## POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

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

Anticipated Formation Tops: KB 3215' (est)  
GL 3195'

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>	<u>ESTIMATED SUBSEA TOP</u>	<u>BEARING</u>
T/Salt	242'	+ 2,970'	Barren
B/Salt	3,332'	- 120'	Barren
T/Lamar	3,537'	- 325'	Barren
T/Ramsey	3,571'	- 359'	Oil/Gas
T/Lwr Brushy Canyon	7,100'	- 3,888'	Oil/Gas
T/"Y" Sand	7,217'	- 4,005'	Oil/Gas
T/Bone Springs Lime	7,392'	- 4,180'	Oil/Gas
TD	7,697'	- 4,485'	

## POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>HOLE SIZE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	<u>CONDITION</u>
16"	20"	0' – 60'	Conductor	Contractor Discretion
11-3/4", 42#, J-55, ST&C	14-3/4"	0' – 232'	Surface	New
8-5/8", 32#, J-55, LT&C	11"	0' – 3,547'	Intermediate	New
5-1/2", 15.50#, K-55, LT&C	7-7/8"	0' – 6,500'	Production	New
5-1/2", 17#, K-55, LT&C	7-7/8"	6,500' – 7,697'	Production	New

## CASING DESIGN SAFETY FACTORS:

<u>TYPE</u>	<u>TENSION</u>	<u>COLLAPSE</u>	<u>BURST</u>
11-3/4", 42#, J-55, 8rd, ST&C	31.51	10.08	8.63
8-5/8", 32#, J-55, LT&C	3.28	1.37	1.11
5-1/2", 15.5#, J-55, LT&C	1.79	1.39	1.44
5-1/2", 17#, J-55, LT&C	11.62	1.54	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 at 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.

#### PROTECTIVE CASING

Tension	A 1.6 design factor utilizing the effects of buoyancy (10 ppg).
Collapse	<p>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 (0.52 psi/ft). The effects of axial load on collapse will be considered.</p> <p>In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.</p>
Burst	A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at 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.

#### 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 (3460 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 – 2000 psi system (Diagram 2) will be nipped up on the surface casing head. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casing head will be hydro-tested to 2000 psig by independent tester. The BOPE when rigged up on the intermediate casing spool will be as described in Diagram 2 and will be tested to 3000 psig by independent tester. (As per Onshore Oil & Gas Order No 2 – 3000 psig system) In addition to the high pressure test, a low pressure (200 psig) test will be required on both surface and intermediate casing strings. These tests will be performed:

- 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' – 242'	FW Spud Mud	8.5 - 9.2	45-35	NC	NC	NC	10.0
242' – 3537'	BW	9.8 - 10.2	28-30	NC	NC	NC	9.5-10.5
3537' – 6000'	Fresh Water	8.8 – 9.2	28-30	NC	NC	NC	9.5-10.5
6000' – 6900'	FW/Starch	8.8 – 9.2	30-35	4	8	<100	9.5-10.5
6900' – 7700'	FW/Starch	8.8 – 9.2	40-45	4	8	<25	9.5-10.5

**\*\* If there is no intermediate casing set @ 3465', the drilling fluid will be 10 ppg BW to 5600' where it will be converted to BW/Diesel with properties as follows: 8.8 – 9 ppg, 32 – 40 funnel secs vis, YP2, PV 8, FL 25 cc or less, Ph 9.5 – 10.**

**NOTE: May increase vis for logging purposes only.**

**POINT 6: TECHNICAL STAGES OF OPERATION**

**A) TESTING**

None anticipated.

**B) LOGGING**

GR-CNL-LDT-LLD from TD to Base of Salt (+/-3,322'). Run GR-CNL from Base of Salt to surface.

**C) CONVENTIONAL CORING**

None anticipated.

**D) CEMENT \***

INTERVAL	AMOUNT SKS	FT OF FILL	TYPE	GALS/SK	PPG	FT <sup>3</sup> /SK
<b>SURFACE:</b>						
Lead 0 – 787' (100% excess)	207	287	Class C + 2% CaCl <sub>2</sub>	6.33	14.8	1.34
<b>PRODUCTION:</b>						
Stage 2						
Lead 0 - 4900' (50% excess circ to surface)	1058	4900	50/50 Poz C + 10% D20 + 0.02% D46 + 0.125 pps D130 + 5% D44	14.71	11.9	2.50
Tail 4900' - 5000' (50% excess)	55	100	Class C + 1% D13	6.33	14.8	1.34
DV Tool @ ± 5000'						
Stage 1						
Lead 5000' - 6000' (50% excess)	319	1000	CemCrete 39/31 + 2% D53 + 0.05 gps D604AM + 0.03 gps M45 + 2 pps D24 + 0.04 gps D801	9.88	10.2	2.33

<u>INTERVAL</u>	<u>AMOUNT SKS</u>	<u>FT OF FILL</u>	<u>TYPE</u>	<u>GALS/SK</u>	<u>PPG</u>	<u>FT<sup>3</sup>/SK</u>
Stage 1 Tail 6000' - 7697' (50% excess)	641	1697	CemCrete 39/31 + 2% D53 + 0.05 gps D604AM + 0.03 gps M45 + 2 pps D24 + 0.04 gps D801	7.34	10.5	2.04
* INTERMEDIATE (if required): Lead 0' - 3297' (100% excess circ to surface)	724	3297	50/50 Poz C + 10% D20 + 0.02% D46 + 0.125 pps D130 + 5% D44	14.71	11.9	2.50
Tail 3297' - 3547' (100% excess)	115	250	Class C + 1% CaCl <sub>2</sub>	6.34	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 3464 psi (max) or MWE of 8.7 ppg is expected. Lost circulation may exist in the Delaware section from 3,571'- 7,392'. No H<sub>2</sub>S is anticipated.

Estimated BHT is 140° F.

#### 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

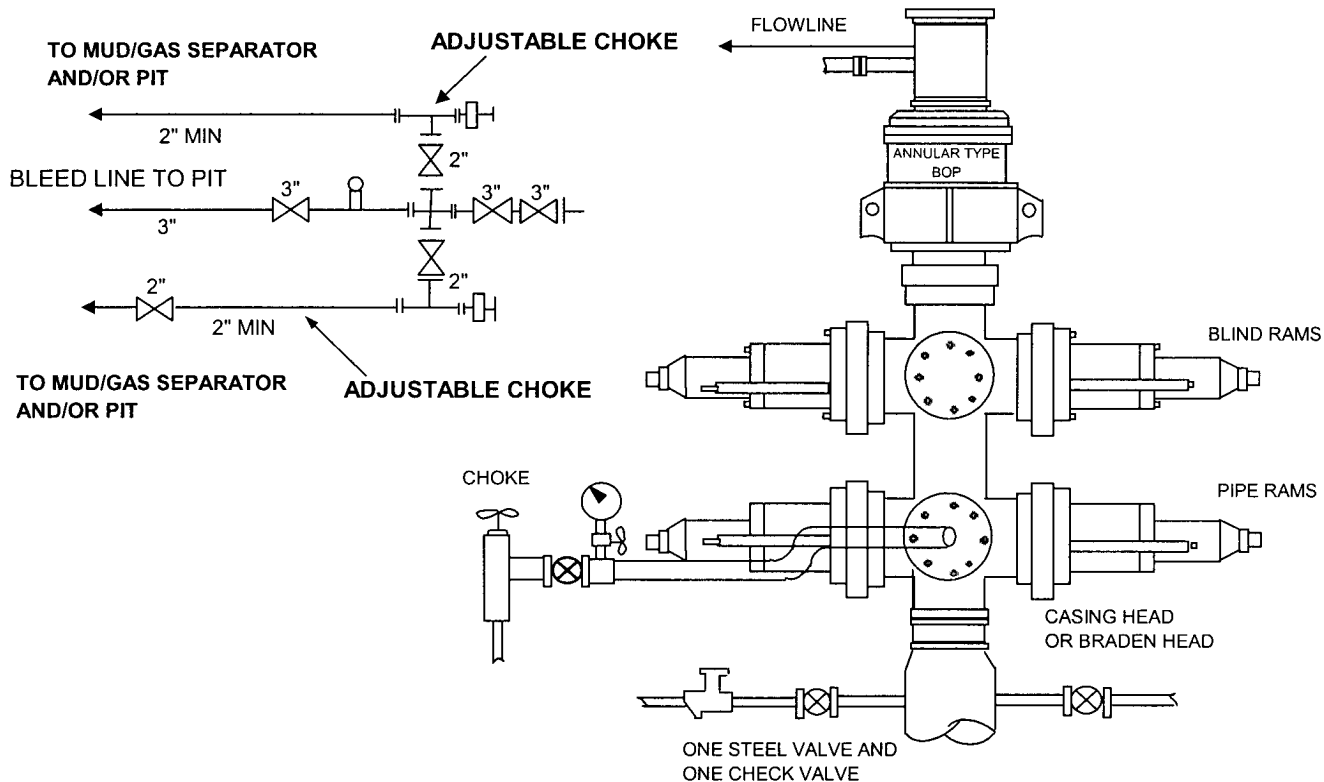
14 days completion operations

GEG/mac  
August 21, 2007

# 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 minimum of one inch in diameter.
- D. The available closing pressure shall be at least 15% in excess of that required with sufficient 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**