DRILLING PROCEDURE

Poker Lake #50

Location:

1980' FWL & 1980 FNL, Sec. 4, T25S, R31E

Conductor Casing:

 $40' \pm of 20"$ conductor casing will be set with a rathole machine and cemented to the surface with ready mix.

Surface Hole:

A $17\frac{1}{2}$ 0.H. will be drilled to 750' + (Rustler) and 13-3/8" 48#/ft H-40 casing run to total depth. The surface casing will be cemented with 300 sx Class "C" plus 2% CaCl₂. Cement must be circulated to the surface.

Total WOC time is 8 hours.

Nippling Up 13-3/8" Casing:

After waiting 4 hours "nippling up" procedures may begin. An 13-3/8" SW 3000# WP x 12" 3000# WP casinghead will be welded in place. A set of hydraulic operated pipe and blind rams will then be installed. (See BEPCO II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily driller's log.

Intermediate Hole:

An $12\frac{1}{3}$ " O.H. will then be drilled to 4320' w/10 ppg BW (T/Delaware Mtn. Group). 9-5/8" casing will be run to total depth and cemented with approximately 800 sks Halliburton Lite plus 8# NaCl/sx plus 1/4#/sx flocel, "tailed-in" with 200 sx Class "C" with 2% CaCl2 plus 1/4#/sx flocel. Cement will be circulated to the surface.

Total WOC time for this casing string will be 12 hours.

Nippling Up the 9-5/8" casing:

After waiting 4 hours "nippling up" procedures may begin. The 13-3/8" casinghead will be removed and a 9-5/8 SW 5000# WP x 10" 5000# WP casinghead installed.

A BOP stack consisting of hydril, pipe rams and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hudrostatically tested to 5000 psi (hydril 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 9-5/8" BOP stack. A copy of the test results will also be furnished to the USGS.

The results of this test will be recorded in the daily driller's log.

Production Hole:

A 8-3/4" O.H. will then be drilled to T.D. (15,500' \pm). The drilling fluid will be fresh water to 11,450' and 10 ppg brine from T/Wolfcamp to T.D., with variations in mud weight as dictated by formation pressures. A PVT recorder, flowshow sensor and rotating head will be installed before drilling the Wolfcamp.

 $5\frac{1}{2}$ " casing will be run to T.D. This casing string will be cemented with approx. 900 sx Class "H" plus 5# KCl/sx plus 0.3% CFR-2, plus 0.6% Halad 22. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time:

This well is estimated to take 85 days from spud to T.D.

Gary Gerhard