APPLICATION TO DRILL

GRUY PETROLEUM MANAGEMENT CO.
ELLIOTT FEDERAL #6
UNIT "I" SECTION 17
T26S-R37E LEA CO. N.M.

9. Cementing & Setting Depth:

| 8 5/8" | Surface | Set 750' of 8 5/8" \(\mathcal{K} 55 24\fit \) ST&C casing. Cement with 600 Sx. of Class "C" cement \(\phi \) additives, circulate cement to surface. |
|--------------|------------|---|
| <u>4</u> نځ۳ | Production | Set 4000 ' of $5\frac{1}{2}$ " $15.5\#$ K-55 ST&C casing. Cement in two stages. First stage cement with 650 Sx. of Class "C" + $3\#$ Salt/Sx. + $\frac{1}{2}\#$ flocele/Sx. + 2% CaCl. Second stage cement with 500 Sx. of Halco Light + $9\#$ Salt/Sx. + $\frac{1}{2}\#$ flocele/Sx. circulate cement to surface. |

10. Pressure Control Equipment: Exhibit "E". A series 900 3000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. 30P unit will be hydraulically operated. Exhibit "E-1" is a Choke manifold and closing unit. BOP will be nippled up on the 85/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. Flo sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed Mud Circulating System:

| Depth | Mud Wt. | Viscosity | Fluid Loss | Type Mud |
|------------|---------|-----------|------------|---|
| 0-750' | 8.6-8.9 | 29-36 | NC | Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole. |
| 750- 4000' | 10-10-3 | 29-38 | NC | Brine water add paper as needed to control seepage and add lime to control pH, Use high viscosity sweeps to clean hole. |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and water loss may have to be adjusted in order to meet these needs.