

APPLICATION TO DRILL

CONCHO RESOURCES, INC.
 WEST SHUGART "30" FEDERAL # 6
 UNIT "O" SECTION 30
 T18S-R31E EDDY CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Reri-mix.
13 3/8"	Surface	Set 775' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of Class "C" cement + 2% CaCl ₂ + 1/4# Folcele/Sx. circulate cement to surface.
8 5/8"	Intermediate	Set 2800' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of Class "C" cement. 750 Sx. of Light cement + additives, tail in with 250 Sx. of Class "C" cement + 2% CaCl ₂ + 1/4# Flocele/Sx., circulate cement to surface.
5 1/2"	Production	Run and set 12,400' of 5 1/2" casing as follows: 2200' of 17# S-95 LT&C, 9100' of 17# N-80 LT&C, 1100' of 17# Buttress LT&C. Cement in 2 stages DV tool st 6500'±. cement 1st stage with 600 Sx. of Class "H" Premium Plus + additives, 2nd 650 Sx. of Class "C" additives TOC 2500'.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-775'	8.4-8.7	29-32	NC	Fresh water spud mud add paper to control seepage.
775-2800'	10.1-10.3	29-34	NC	Brine water add paper to control seepage and high viscosity sweeps to clean hole
2800'-11,800'	10.2-10.5	29-37	NC	Same as above
11,800-12,400'	10.2-10.5	32-40	10 cc or less	Brine system use Polymer to control water loss and high viscosity sweeps to clean hole.

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