CONCHO RESOURCES, INC

Rifleman "6" State #1 720' FSL & 800' FWL, Sec 6, T22S, R26E Eddy County, New Mexico

SURFACE: 0' to 600'

Drill a 20" hole to approximately 600' (make hole to fit 16" casing) Run survey at 300' & TD.

MUD PROGRAM FOR SURFACE HOLE

DEPTH	MUD WEIGHT	TYPE	VISCOSITY	FLUID LOSS
0 - 600'	8.6 - 8.9	FW/Gel/Lime	29-32	N/C

INTERMEDIATE: 600' TO 2250'

Drill 14 3/4" hole from 600' to 2250' starting out of shoe w/Fresh water circulating the reserve pit. Paper should be used to control seepage. Use NP-110 for sweeps. Make hole to fit 9 5/8" casing tally.

Survey every 500' w/ maximum deviation of 5° & 1°/100' change. Install H_2S equipment at 1900'.

MUD PROGRAM FOR INTERMEDIATE HOLE

DEPTH	MUD WEIGHT	TYPE	VISCOSITY	FLUID LOSS
600'- 2250'	8.4 - 8.6	FW	28-29	N/C

PRODUCTION 2,250' TO 11,500'

Drill 8 ³/₄" hole from 2250' to 8400' using FW. Use brine additions to get MW to 9.0 by 8400'. Mud up w/White Starch/Star NP 110 system @ 9400' using Barite if additional weight is needed. Have MW 10.0 prior to Strawn @ 9920'. Add Xanthan Gum for 36 viscosity and reduce fluid loss to <7 cc's prior to Atoka interval @ 10,175'. Use caustic soda to maintain pH at 9.0 to 9.5. Use LCM sweeps of paper to control seepage & clean hole.

Survey every 500' w/ maximum deviation of 5° & $1\frac{1}{2}$ °/100' change.

Install rotating head & mud gas separator by 8000'.



MUD PROGRAM FOR PRODUCTION HOLE

DEPTH	MUD WEIGHT	ТҮРЕ	VISCOSITY	FLUID LOSS
2,250' - 8,400'	8.4 - 9.0	FW	28-29	N/C
8,400' - 9,400'	9.0 - 9.1	Cut brine	28-29	N/C
9,400' - 9,900'	9.1 - 10.0	Starch	30-32	<20 cc's
9,900' - 11,500'	9.1 - 10.0	Xanthan Gum	36-42	<7 cc's