IV. Casing and Cementing Program

A. Casing Program

Depth	Hole Size	Csg. Size	Wt.	Grade	Coupling	Type
0- 600'	17 1/2"	13 3/8"	48#	H-40	STC	Surf.
0- 3500'	11"	8 5/8"	24#	K-55	STC	Inter.
3500- 5100'	11"	8 5/8"	24#	S-80	STC	Inter.
0- 9000'	7 7/8"	5 1/2"	17#	K-55	LTC	Prod.
9000-10500'	7 7/8"	5 1/2"	17#	L-80	LTC	Prod.

B. Cementing Program

Casing	Top of Cement	Cement Types	Sacks
Surface	Surface	Class "C" w/2% $CaCl_2$	630
Intermediate	Surface	Lite w/3% salt & cello-phane flakes	1450
		Class "C" Neat	250
Production	6,000'	Class "H" w/3% KCl, 0.3% CF-14	885

V. Drilling Fluids Program

A.

Depth	Hole Size	MW	Vis	WL	Comments
0- 600'	17 2/2"	8.4- 9.0	28-34	NC	Fresh water spud mud
600- 5100'	11"	9.8-10.2	30-32	NC	Brine w/salt gel
5100- 8000'	7 7/8"	8.5- 9.2	28.32	NC	Cut brine, lime
8000-10500'	7 7/8"	8.9- 9.2	30-33	15-20	Cut brine w/salt gel

B. The mud system volume will be approximately 800 barrels.

C. Use of weighting materials is not anticipated but barite will be kept on site.

D. Mud pit levels will be monitored visually, and a flow rate indicator will be installed.

E. Chemicals kept on site to control a possible H_2S influx are Sodium and calcium Hydroxide to raise the pH and Zinc Carbonate to be used as a scavenger.