

Cementing Program

700'	13-3/8" Surface Casing:	Cement to surface: 405 sxs Class C containing 4% Gel, 2% Calcium Chloride followed by 235 sxs Class C containing 2% Calcium Chloride.
2200'	8-5/8" Intermediate Casing:	Cement to surface: 360 sxs Interfill C containing 1/4#/sack Flocele followed by 205 sxs Class C containing 2% Calcium Chloride.
9200'	5 1/2" Production Casing	
	Lead Slurry:	Cement Lead to cover from 7500' up to and inside 8-5/8" casing to 2000' using 50:50 Poz C with 10% Gel, 0.5% FLAC, 0.25% TIC, 0.25 pps Cello-Flake + 5 pps Kolite (in 1 st 175 sacks).
	Tail Slurry:	Cement tail to cover from TD up to 7500' using 50:50 Poz C with 2% Gel, 0.3% FLAC, 0.2% TIC, 0.25 pps Cello-Flake, 1% B28.

5. Minimum Specifications for Pressure Control

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000# WP) preventor. This unit will be hydraulically operated. The BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP will be function tested.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily driller's log. Other accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having a 3000# WP rating.

6. Types and Characteristics of Proposed Mud System

This well will be drilled to total depth with fresh water, cut brine and starch mud systems. Depths are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' - 700'	Fresh water	8.3 - 8.8	28 - 36	No control
700' - 2200'	Brine	10.0 - 10.2	28 - 30	No control
2200' - 7400'	Fresh Water	8.3 - 8.8	28 - 30	No control
7400' - TD	Cut Brine with Starch	9.0 - 9.6	30 - 34	< 20 cc