

20" casing will be cemented with <sup>1000 SKS</sup> sufficient light cement, tailed-in with <sup>400</sup> ~~200~~ sx Class "C" cement containing 2 % CaCl to circulate to the surface.

13-3/8" casing will be cemented with <sup>1500 SKS</sup> sufficient light cement, tailed-in with <sup>400</sup> ~~300~~ sx Class "C" cement, to circulate to the surface.

9-5/8" casing will be cemented back to +4000' with <sup>500 SKS</sup> light cement tailed-in with 300 sx Class "C"

7" casing will be cemented <sup>WITH 1000 SKS LT, TAILED IN W/ 400 SKS CLASS H</sup> back above 9-5/8" shoe.

5" liner will be cemented with sufficient volume to circulate. <sup>250 SKS CLASS H</sup>

Note: All casing strings will be pressure tested to 0.22 psi/ft. of setting depth or 1500 psi (whichever is greater) after cementing and prior to drillout.

5. Pressure Control Equipment: See Attached Diagrams.

6. Mud Program:

Surface to 2,200': Fresh water spud with 35 to 45 sec/1000 cc viscosity. Will keep mud weight as low as possible using solids separation equipment and water. Will maintain fresh gel in system.  $\mu_{ud} \text{ WT} = 9.5/9.6$

2,200' to 5,200': Fresh water/ controlled brine water. Circulate to reserve pit. Will use lime for pH control in range 10 to 11. Will sweep hole with gel slugs as required for hole cleaning.  $\mu_{ud} \text{ WT} \leq 9.5$

5,200' to 11,700': 8.6 to 9.2 ppg controlled brine water. Will use lime for pH control in range 10 to 11. Will sweep hole with salt gel slugs as required for hole cleaning. Will use paper for seepage losses. Will adjust fluid weight as required using brine water.

11,700 to TD: Drill out below 7" casing with premix mud. Mud weight will be adjusted as required by hole conditions.  $\mu_{ud} \text{ WT} = 11.5/12.0$