

Cement with:

First stage: 350 sks 35/65/8% gel + 5% salt + .2% R-3 mixed @ 11.8, yield 2.53. 200 sks Class H, .8% FL 62, .3% Ba-10 + .03 CD-32 + .2% SMS mixed @ 15.6 ppg, yield – 1.18 cf/sk.

Second Stage: 800 sks 50/50/2%, .2% CD-32, +5% salt. Mixed at 14.4 ppg, yield – 1.17 cf/sk 50 sks Class C Neat mixed @ 14.8 ppg, yield – 1.32 cf/sk.

4. 4 ½" Flush Jt Liner – 13.5# P-110 set at 11,900' TVD. Logs will be ran to determine exact cement volume and a 400' overlap for liner hanger and packer will be set. Cement will be circulated to top of liner. Cement with 350 sks Class H, 0.8% FL-62, .3% BA-10, .3% CD-32, .2% SMS Mixed @ 15.6 ppg, yield 1.18.

11. Pressure Control Equipment

0'– 675' None

675'–2500' 11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular type preventer. A choke manifold and accumulator with floor and remote operating stations and auxiliary power system.

A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

2,500'–9,700' After setting the 9 5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 5000 psi. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log. The BOP's will be maintained ready for use until drilling operations are completed.