

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.

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.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

12. Mud Program:

0-400'	Fresh water/native mud. Lime for pH control (9-10). Paper for seepage. Wt. 8.7-9.2 ppg, vis 32-34 sec.
400-4500'	Fresh/*brine water. Lime for pH control (10-10.5). Paper for seepage. Wt. 8.3-9.0/10.0-10.1ppg, vis 28-29 sec. *Fresh water will be used unless chlorides in the mud system increase to 20000PPM.
4500-9500'	Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt. 8.3-8.5 ppg, vis 28-29 sec.
9500-11000'	Cut brine. Lime for pH control (10-10.5). Wt. 9.6-10.0 ppg, vis 28-29 sec.
11000-12300'	Mud up with an Duo Vis/Flo Trol system. Wt. 9.6-10.0 ppg, Vis 32-36sec, WL<10cc.

Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1) A recording pit level indicator.
- 2) A pit volume totalizer.
- 3) A flowline sensor.