

5. Minimum Specifications for Pressure Control:

12-1/4" hole

The following BOP equipment will be nipped up on the 13-3/8" casing and used continuously until TD is reached for the 12-1/4" hole.

The blowout preventer equipment (BOP) shown in Exhibit E will consist of a 3000 psi WP double ram type preventer and a 3M annular (bag type) preventer with rotating head. Both BOP's will be hydraulically operated. At the drilling contractor's option, 5M BOP's may be substituted. H2S trim will not be required.

Before drilling out from under the 13-3/8" casing, all BOP's and accessory equipment will be tested to 1000 psi with the rig pump. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

BLM method to calculate minimum BOP requirements:  
 $(.052)(10 \text{ ppg})(3100') - (0.22 \text{ psi/ft})(3100') = 930 \text{ psi}$   
Minimum BOP requirements: 2M BOP stack and manifold system

8-1/2" hole

The following BOP equipment will be nipped up on the 9-5/8" casing and used continuously until TD is reached for the 7-7/8" hole.

The blowout preventer equipment (BOP) shown in Exhibit E will consist of a 3000 psi WP double ram type preventer and a 3M annular (bag type) preventer with rotating head. Both BOP's will be hydraulically operated. At the drilling contractor's option, 5M BOP's may be substituted. H2S trim will not be required.

Before drilling out from under the 9-5/8" intermediate casing, all BOP's and accessory equipment will be tested to 1000 psi with the rig pump. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

BLM method to calculate minimum BOP requirements:  
 $(.052)(8.4 \text{ ppg})(11,200') - (0.22 \text{ psi/ft})(11,200') = 2428 \text{ psi}$   
Minimum BOP requirements: 3M BOP stack and manifold system