

3. MINIMUM SPECS FOR PRESSURE CONTROL:

- a. A diagram of the Blowout Preventer Stack and Wellhead Equipment is presented in Exhibit #1. The wellhead equipment for the intermediate hole (12-1/4" @ 2,360') is altered only by the replacement of the 13-5/8" 3000 psi WP x 11" 5000 psi WP cross-over spool with the 13-5/8" 3000 psi WP x 11" 5000 psi WP casing spool during the drilling of the 8-3/4" production hole. A diagram of the Choke Manifold is presented in Exhibit #2. All BOP and Choke Manifold equipment will be rated to 5000 psi Working Pressure (WP) minimum (min).
- b. Surface Casing Wellhead Equipment will consist of:
 - i. A 13-5/8" slip-on weld-on 3000 psi WP(min) braiden head w/ 2: 2" SE outlets with 2:2" SE XXHVY nipples and 2:2" SE FO 3000 psi WP(min) ball valves. This braiden head will be welded-on & nipples-up after the 700'+ of 13-3/8" Surface Casing is set and cemented.
 - ii. A 13-5/8" 3000 psi WP(min) x 11" 5000 psi WP(min) cross-over spool will be installed upon the braiden head. This spool will be removed AFTER the 9-5/8" Protective Casing has been set and cemented.
 - iii. All wellhead and BOP equipment and the 13-3/8" Surface Casing will be pressure tested to 1000 psi with the rig pumps prior to drilling out.
- c. Protective Casing Wellhead Equipment will consist of:
 - i. A 13-5/8" slip-on weld-on 3000 psi WP(min) braiden head w/ 2: 2" SE outlets with 2: 2" SE XXHVY Nipples and 2: 2" SE FO 3000 psi WP(min) ball valves.
 - ii. A 13-5/8" 3000 psi WP x 11" 5000 psi WP casing spool w/ 2: 2" FO FE outlets w/ 2: 2" FO FE 5000 psi WP gate valves. This casing spool will be nipples-up after the 2,360' of 9-5/8" protective casing is set and cemented. The secondary seal will be tested to 1000 psi.
 - iii. All wellhead and BOP equipment and the 9-5/8" Protective Casing will be pressure tested to 2500 psi prior to drilling-out the 8-3/4" Production Hole.
 - iv. A wear ring will be installed in the 13-5/8" 3000 psi WP x 11" 5000 psi WP casing spool for the drilling of the 8-3/4" production hole, and removed PRIOR TO running the 5-1/2" Production Casing.