Application for Permit to Drill Federal AK #1

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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.

A mud/gas separator will be installed after setting the 8 5/8" casing and be operable before drilling into the Wolfcamp formation.

- 12. Mud Program:
 - 0' 350' Fresh water spud mud. Using lime to control pH (9 to 10). Paper for seepage. Vis 35-45 sec.
 - 350' 2500' Fresh water. Wt. 8.4-8.6 ppg, Vis 26-28 sec, pH 9.5-10.5 with lime. Paper for seepage control.
 - 2500' 7500' Fresh water. Wt. 8.4-8.7 ppg, vis 28-31. Lime for pH control. Paper for seepage.
 - 7500' 9700' Add potassium carbonate for 1500 ppm K+. Use lime to control pH and paper for seepage. Wt. 8.4 to 8.6, vis 26 to 28 sec, pH 9 to 10.
 - 9700' 10300' Mud up with K+ system using gel for viscosity, starch for water loss, potassium carbonate for K+ control, and potassium hydroxide for pH control to the following characterstics: pH 8 to 8.5, wt. 8.5-9.0, WL 5-15, vis 36-40, K+ 1500-1800 ppm.