This occurs when the formation water is fresher than the mud filtrate. Rmf was .99 at 58°F (which is approximately 7700 ppm). Maximum recorded temperature during logging was 130°F. Assuming 60°F at the surface the temperature gradient in (130-60°F) - 5600' = .0125°F/ft. The BHT at 3320' should be 102°F. Rmf at 102°F is .58. Rmfeq = .85 (Rmf) = .49 (using chart Gen-9). Using chart SP - 1 from Schlumberger chart book, ignoring bed thickness effect, and using SP = +15 then Rmfeq/Rwe = .55. It follows that Rwe = $\frac{.49}{.55}$ = .89. Using chart SP - 2 then Rw = 2.3. This equivalent to 1600 ppm salinity.

ITEM VIII

Data pertaining to planned injection at Leggs Field

Lithologic Detail: Sandstone, white to tan, medium sorting, angular, trace aragonic & calcite

Geologic Name: Dakota Sandstone

Thickness: 230 feet

Depth to Top: 4170 feet

Depth to Bottom: 4400 feet

Underground drinking water source underlying Dakota

Morrison Formation - top 4490

Drinking water sources overlying Dakota

Gallup S.S. - bottom 3650

Menefee - 1810

Cliff house - 1360