Geological Data Injection Zones For

Gulf Oil Corporation's North Seven Rivers Queen Pilot

Dept.

INJECTION ZONES

Seven Rivers - 3350-3700' (350')
This formation is composed predominately of dolomite with thin, 10 to 20 foot zones of porous sandy dolomite.

Queen - 3700-3975' (275')

This formation is composed predominately of dolomite sandstone with interbedded tight dolomite beds 5' to 20' thick. Porosity, is developed primarily in the sandstone.

FRESH WATER AQUIFERS

Ogallala - Approx. base 260'

The Ogallala is the principle Aquifer in the area. It consists of a semi-consolidated fine-grained calcareous sand capped with a thick layer of caliche; contains some clay, silt, and gravel.

Chinle - Santa Rosa - Approx. base 1000'

The Chinle and Santa Rosa formations are known to produce small quantities of water. The Chinle consists of claystone with minor fine grained sandstones and siltstones. The Santa Rosa consists of fine to coarse grained sandstones.

Undiffertiated Red beds - Approx. base 1535'

The Undifferentiated red beds are composed of red shale and red silty sandstone. No wells are known to be bottomed in the Red-beds, but could probably yield very small quantities of high sulfate water (Ground-Water Report 6, U.S.G.S. 1961).

> Exhibit 6
> Case No. 8312 August 22, 1984