Geologic Report

By

Damian G. Barrett

John H. Hendrix Corp.
Wood State #5
E/2 of NW/4 Sec. 16
T-20-S, R-37E N.M.P.M.
Lea County New Mexico

SETTING

The John H. Hendrix Corp. Wood State lease is situated in eastern Lea County, New Mexico on the western flank of the Southeast Monument ABO and within 2 miles or so of the Monument ABO and Skaggs ABO Fields. Production in the area is from Eumont, Grayburg, San Andres, Paddock, Blinebry, Tubb, Drinkard, Abo and Strawn reservoirs at various depths between 3200 and 8000 feet. The Wood State lease in question is below 7000' only, which eliminates the possibility of using all of the other productive horizons as a backup zone in case of failure in the Abo. Most wells in the vicinity have been completed in more than a single pay zone, and in some wells the production has been commingled in order for the well to be considered commercial. In order to test the above mentioned reservoirs, John H. Hendrix Corp. will drill the captioned well to the Abo. There is considerable risk in drilling here because of lost circulation in the depleted Grayburg - San Andres zones.

STRUCTURE

As shown on the enclosed structure map of the Abo horizon, the Wood State Field is a structurally positive area having 25 to 35 feet of relief at the Abo horizon. Recent drilling has shown that the fields listed above are possibly structurally separated from one another at the level of the Abo. However, the shallow structure is believed to be the result of drape over deep-seated faulted structures. As shown on the enclosed Structural Cross Section, the structure in the **immediate** lease area does not change much over the Abo.

RESERVOIR DEVELOPMENT

All of the reservoirs listed above were deposited in a shallow water carbonate platform setting (formed over a deep-seated structural high). The distribution of depositional facies within each carbonate platform sequence was influenced by the topography of the underlying previous carbonate platform. The Abo reservoir contains a multitude of thin bedded sequences. Porosity in most of both reservoirs is contained within stratigraphic intervals which seem to correlate over a larger area. Therefore most of the wells in the area have been perforated in approximately the same intervals within each reservoir. However, close examination and comparison of the wells in the area reveals that a particular porous unit may not cover more than 1 or 2 locations (as evidenced by the Cum. Production Map), and that it may be replaced by another unit in a similar stratigraphic position. Often a well which is low at one horizon develops porosity in a shallower zone. Such reservoir heterogeneity makes it very difficult to condemn or prove up a potential drilling location based solely on its structural position or by a nearby well which has poorly developed porosity.

Before the Oil Conservation Division
Santa Fe, New Mexico
John H. Hendrix Corp. Exhibit No. 8
Case No. 12085
November 5, 1998

RESERVES

Cumulative production for the nearby wells in the vicinity of the Wood State lease is shown on the enclosed Cumulative Production Map. A typical Abo producer in the area is expected to produce between 3 MBO and 130 MBO with associated gas.