

INTEROFFICE MEMORANDUM

DATE: 17-Jul-97
TO: MIKE HAZLIP
FROM: ROBERT A. HEFNER IV 
RE: HORIZONTAL WELL APPLICATION
SUMRULD 1-18 T16S-R36E
1,358' FSL & 2,205' FEL
Lea County, New Mexico

An horizontal well plan is requested to insure Chesapeake the highest probability of discovering and producing Strawn reservoir in the most economically efficient manner. Our 3D seismic survey over the subject area suggests we have the opportunity to find reservoir quality Strawn in an optimal structural attitude along the proposed well plan, provided we are granted the flexibility to drill the wellbore as presented.

The failed Strawn tests in the immediate area have encountered both tight and water wet reservoir suggesting the necessity for flexibility in locating wellbores utilizing all available resources for an optimum site selection. The attached structure map on the Strawn formation exhibits the required four way closure along the requested horizontal well plan. This structural closure coincides with the area of maximum Strawn mound growth (porosity) as illustrated by the stratigraphic cross section. It also shows that the optimum producing units would be two stand-up 80 acre units consisting of the west half of the southeast quarter and the east half of the southwest quarter of section 18. Such a configuration would enable the proposed wellbore plan to access reservoir quality rock at its most advantageous structural position, which coincides with the approximate center boundary of the proposed unit.

In order to obtain the most advantageous structural and stratigraphic position, thereby insuring the highest probability of success, then an horizontal well plan is requested.