

**NECESSITY FOR UNORTHODOX LOCATION OF  
YATES RIVERSIDE "ASS" FEDERAL #1  
S/2 Section 8 T17S-R27E  
1650 FSL & 660 FEL of Section**

The necessity for this non-standard location is based on geologic conditions prevailing in the primary objective Lower Morrow Clastics interval.

The map exhibit is an isopach map of the Lower Morrow Clastics. Double encircled well spots are Morrow penetrations. The contour interval is 20 feet. The spacing unit is outlined in red and the proposed location is pointed out.

The isopach map exhibit depicts the varying thickness of the Lower Morrow to Mississippian unconformity interval in the environs of the subject proration unit. Contouring of the available well control shows that the proposed location is on the West flank of the main "thick" in the area. Experience in this area has shown that wells in or near "thicks" have a much better chance of encountering Lower Morrow alluvial channel sand reservoirs capable of producing very good economic volumes of gas. Note trace of crossection A-A' shown on map.

The crossection exhibit shows the pertinent correlation in a general West to East direction across the area. Please note that the well with the thickest Lower Morrow clastics interval in unit (O) of Section 4 has 2 channel sand bodies: one of which is 33 feet thick (the productive reservoir) and a 10 foot sand sitting on the eroded Chester Lime.

An exhibit showing a table of production is included.

The proposed location should encounter sufficient Lower Morrow interval to accommodate an alluvial sand channel capable of producing economic volume gas.

**BEFORE THE  
OIL CONSERVATION DIVISION  
Santa Fe, New Mexico**

Case Nos. 12084 Exhibit No. 9

Submitted by: Yates Petroleum Corporation

Hearing Date: December 3, 1998