

WEST SOMBRERO STATE UNIT

Yates Petroleum Corporation seeks approval of the West Sombbrero State Unit, comprised of 1920 acres in Sections 9, 16, and 21, T-16-S, R-33-E, in Lea County. The initial test well location is 1980' FSL and 1980' FEL of Section 16, near the center of the proposed unit. Approximate total depth of the initial well is projected as 13,700 feet, sufficient to penetrate and test Lower Pennsylvanian formations, and reach the Mississippian Austin limestone cycle.

The primary objective of the proposed West Sombbrero State Unit is the Lower Atoka clastics interval. A 30' to 50' sandstone is anticipated to be encountered near the top of the Morrow limestone. The cross-sections indicate that sandstones are discontinuous over a large area, but detailed well log correlation shows a continuous, sand-filled channel, indicated on the cross-sections as the "Bell" sandstone, trending generally north-south through the area of the proposed unit. A structural anticline, centered in Sections 16 and 21, and extending northward into Section 9, establishes a favorable setting for the accumulation of gas in a structural-stratigraphic trap. Scattered production in the area of the proposed unit suggests the potential for large quantities of natural gas and condensate from the Atoka sandstones.

A secondary objective of the proposed unit is the Seaman limestone, within the Canyon formation. The "Carbonate Isolith" and "Net Feet Porosity" maps of the Upper Seaman bank indicate considerable thickness in the unit area. General strike of the Seaman bank system is north-northeast. The Seaman has been tested by DST and perforations in several wells in this township, and usually tests oil-productive, but very limited in reservoir extent, except for widely scattered wells. Entrapment of hydrocarbons in the Seaman is stratigraphic, entirely dependent the presence of porosity within one or more of the Seaman limestone units.

Another secondary objective of the proposed state unit is the Lower Morrow clastics interval, which typically includes several potential sandstone reservoirs. Sand thickness varies greatly in the Morrow, but the generally thin sandstones are less dependent on favorable structure than the Atoka sandstones for hydrocarbon entrapment. The channel sandstones trend in a southeast direction, and are expected to be encountered in the Morrow clastics interval.

The Queen, San Andres, Wolfcamp, Cisco and Strawn formations also offer potential pay zones within the unit area. Yates intends to fully evaluate and test all hydrocarbon shows for economic potential, in an area where few wells have proven to be economic successes.