

Lacy J State Exploratory Unit Geologic Justification

Yates Petroleum Corporation requests the formation of the Lacy J State Exploratory Unit to support the drilling of two wells within a proposed 12 section unit in northern Lea County. The location of the first well will be 1290' FEL and 1500' FSL of section 8, T12S R34E. The second well could be located in section 6, 16, or 17. The primary target will be the Atoka-Morrow sands, but the well will reach TD in the lower Mississippian limestone at a depth of 12,550'. The proposed unit and well location are shown on the Austin structure map.

This Atoka-Morrow gas play is attempting to locate channel sands by utilizing 3-D seismic, log correlation, and regional mapping. Although these gas sands can be very productive, the channels are often narrow and limited in aerial extent. The targeted sand channels are shown with blue lines on the Austin structure map. Cross section A-A' shows a channel system eroding into the underlying Austin limestone. The blue colored limestone is much thinner and has been replaced by sand at the proposed location.

The two wells shown on the cross section are the only Atoka-Morrow penetrations drilled within the proposed unit area. These wells were dry holes in the Atoka-Morrow and emphasize the risk in drilling Atoka-Morrow wells. The closest good Atoka-Morrow production is the Yates, Indigo #1 well, which has a cumulative production of 7 MBO and 582 MMCFG since December of 2000. This well is located 3 miles east of the unit. Yates recently drilled the Kris #1 (located 2 miles north of the proposed Unit) which should be an excellent well in the Morrow.

There are 5 wells which have produced from the Upper Pennsylvanian carbonates at a depth of approximately 10,000'. Two of these wells are still producing, the Yates, East Bagley AHK State #1, and the Tipton, Pan American State #1. Both of these wells currently produce 2 to 3 BOPD. The Tipton well is by far the best of these 5 shallow producers. This well has produced 157 MBO and 22 MMCF. The next best well is the Yates well which has produced 44 MBO.

Yates is attempting to develop Atoka Morrow production on acreage where there has been no Atoka-Morrow production and only 2 Atoka-Morrow wells drilled. All the acreage is State acreage, and the Yates and Murchinson Companies have approximately 98% of the leases. Occidental Permian Ltd. has a 160 acre lease in the SW/4 of section 5. Occidental has been invited to join the proposed unit. The Lacy J well will be a joint effort with Yates and Murchinson. Yates will drill the well and be the operator.

Yates Petroleum Corporation believes there is potential for channel sand development in this proposed unit. This is a high risk project which will cost approximately \$1,685,500 for a completed well. A successful first well in the unit outline will lead to additional wells being drilled as the channel systems are developed. The formation of this exploratory unit would aid in the development of these potential reservoirs on state acreage that has no production from the Atoka-Morrow and very limited production from any horizon.