

DELTA DRILLING COMPANY

WEST TEXAS DIVISION

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North Mescalero Prospect
Lea County, New Mexico

Delta No. 1 McGuffin Federal

Geology

Delta Drilling Company proposes a 9500 ft. Bough C Permo-Penn test within 959.77 acre North Mescalero working interest unit, consisting of W/2 of Section 2, NE/4 Section 3 of T-10-S, R-32-E, and SE/4 and S/2 of the NE/4 of Section 34, and SW/4 and S/2 of the NW/4 of Section 35 of T-9-S, R-32-E of Lea County, New Mexico. The proposed well will be located 660 ft. FSL and 660 ft. FWL of Section 35 in T-9-S, R-32-E.

The North Mescalero Prospect is a structural prospect situated on the northwest shelf of the Delaware Basin, and is based on subsurface data which indicates that this prospect is on strike with several fields along a north-south trending structural axis. These fields produce from the San Andres, Wolfcamp, Pennsylvanian and Devonian formations.

A deep, lower Paleozoic ancestral high is interpreted to have initiated favorable conditions for the growth of carbonate buildups throughout Upper Penn and Wolfcamp time along this trend. The primary objective in this prospect is to test and evaluate these Permo-Penn potential reservoirs. These zones consist of tan, finely crystalline mottled limestone with pinpoint porosity and some scattered vugs. The proposed location is interpreted to be updip of wet and untested zones of porosity and permeability found in the two offset wells in T-10-S, R-32-E; King Resources No. 1 Mescalero State in Section 2, and Sinclair No. 1 Lea State in Section 3 (see cross-section). Recoverable reserves for the Permo-Penn vary from 150,000 to 200,000 barrels/well.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

EXHIBIT NO. 4

CASE NO. 7565

Submitted by Delta

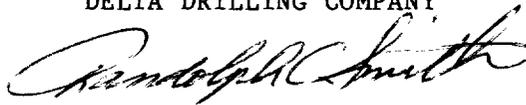
Hearing Date 5/12/82

A secondary objective is the Upper Silurian dolomite (called Devonian by some operators). Pay zones seem to be vertically fractured, and recoverable reserves vary from 500,000 to 1,400,000 barrels/well. If Delta Drilling Company, as the operator, determines the well is running high after drilling to the proposed total depth, they may at that time choose to continue to drill to evaluate deeper potential horizons.

Another objective is the San Andres Slaughter porosity zone, which consists of intercrystalline and vuggy porosity which is vertically fractured. The average cumulative production for a well in the Mescalero (San Andres Field), due south of the proposed unit, is 125,000 barrels/well.

The -3900 ft. contour interval, as seen on the structure map of the T/Wolfcamp marker, is interpreted as being the lowest productive boundary for the Permo-Penn. The proposed unit outline is based on 50% of all 80 acres, which are cut by this -3900 ft. contour interval.

Respectfully yours,
DELTA DRILLING COMPANY



Randolph C. Smith
Geologist

RCS:kr
Enc.