

TABLE I

North Knowles Field
Lea County, New Mexico

I. Volumetric Calculations for Determination of Oil-In-Place.

	<u>Parameter</u>	<u>Source</u>
Area, Acres	22.0	Planimeter Structure Map
Pay, Feet	28	Core and log Data
Porosity, %	3.8	Core and log Data
Water Saturation, %	39.0	Core
Boi, RB/STB	1.07	Calculated
Reservoir Temperature, °F	173°	Well Testing
Oil Gravity, °API	49° @60°F	Analysis
Gas Gravity	.933	Analysis

$$\text{OIP} = \frac{7,758 \text{ AH}\emptyset (1-S_w)}{\text{Boi}}$$

$$= 1,035 \text{ MBO}$$

II. Estimated Ultimate Recovery of Rate Time Analysis

Cumulative Production (1-1-89) = 210,193 BO

Remaining Reserves (1-1-89) = $\frac{297,693 \text{ BO}}{507,866 \text{ BO}}$

Total

III. Recovery Factor

$$\frac{508 \text{ MBO}}{1,035 \text{ MBO}} = 49\%$$

BEFORE EXAMINER STOGNER
Oil Conservation Division
<i>Marathon</i> Exhibit No. <u>8</u>
Case No. <u>9623</u>