

North Hume 5 Federal No. 1
Sec. 5, T16S, R34E
Lea County, New Mexico

I. Volumetrics

Data: BHT, 141°F
BHP, 3816 psia (original reservoir pressure, 12-11-86)
GOR, .938 MCF/B
Boi, 1.462 (from Standing's charts)
Oil, 35.9° API
Gas, 0.6762 s.g.
Ø, 9.25% 6.73% *Changed from core data.*
Sw, 12.94%
Perforations, 10,176-192' (16' net)
Estimated Recovery Factor, 20%

$$\text{OSTOIP} = 7758 \times A \times h \times \emptyset \times (1 - \text{Sw}) / \text{Boi}$$

$$= 7758 \times 160 \text{ Acre} \times 16 \text{ ft} \times 0.0925 \times (1 - 0.1294) / 1.462$$

$$= 1,093,964 \text{ STBO}$$

$$\text{Original Recoverable Reserves} = 0.20 \times \text{OSTOIP}$$

$$= 0.20 \times 1,093,964$$

$$= 218,793 \text{ BO}$$

II. Decline Curve Analysis

Cumulative production 3-27-88 67,276 BO

$$\begin{aligned} \text{Remaining reserves} \\ = \frac{(150 - 3)365}{\ln(1 - .30)} = 150,431 \text{ BO} \end{aligned}$$

Gross ultimate recovery 217,707 BO

*Economic
limit?
3 BO, 2D
30% decline*

NAG:s1-833

REFORM EXAMINER CATAVACH	
OIL CONSERVATION DIVISION	
<i>Southern</i>	EXP. REC. NO. <u>9</u>
CASE NO.	<u>9354</u>