BOTTOM HOLE PRESS. PERFORMANCE

ACTUAL vs. PREDICTED

DOS HERMANOS - MORROW GAS POOL
Eddy Co, New Mexico

Original BHP 5104 PSI

4837 psi 11/65

4764 psi 1/66

4606 psi 7/66

4037 psi 10/67

ACTUAL BHP

PREDICTED BHP

ASSUMPTIONS:
1. 640 Acre Drainage Area
2. 14' Net Pay
3. No Water Imflux

BHP, psi (-8889' datum)

5200 5000 4800 4600 4400 4200 4000 3800 3600 3400 3200

DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEPT. OCT. NOV. DEC.

1965   1966   1967

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Pan Am EXHIBIT NO. 5
CASE NO. 3351

DRAINAGE AREA AND ECONOMIC CALCULATIONS
DOS HERMANOS MORROW GAS POOL
EDDY COUNTY, NEW MEXICO

DRAINAGE AREA CALCULATIONS

Reserves from BHP/Z vs. Cum. Prod. Curve = 9.5 BCF

Gas Recovery per Acre Foot = 550 MCF

Net Effective Pay = 14 feet

Drainage Area of Emperor Oil Co. Fed. Gas Com. No. 1 =

$$\frac{9,500,000 \text{ MCF}}{550 \text{ MCF/Ac-Ft} \times 14 \text{ Ft}} = 1,234 \text{ acres}$$

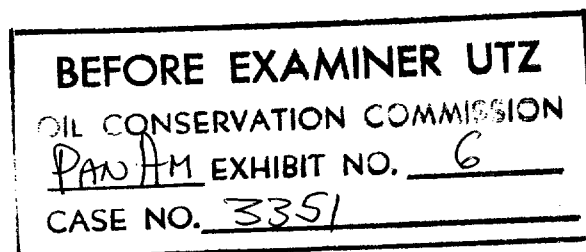640 Acre Reserves $= \dfrac{640 \text{ Acres}}{1234 \text{ Acres}} \times 9.5 \text{ BCF} = 4.9 \text{ BCF}$

320 Acre Reserves $= \dfrac{320 \text{ Acres}}{1,234 \text{ Acres}} \times 9.5 \text{ BCF} = 2.5 \text{ BCF}$

ECONOMIC CALCULATIONS

Return on Investment for 640 acre well = 2.00
        (from chart)

Return on Investment for 320 acre well = 0.53
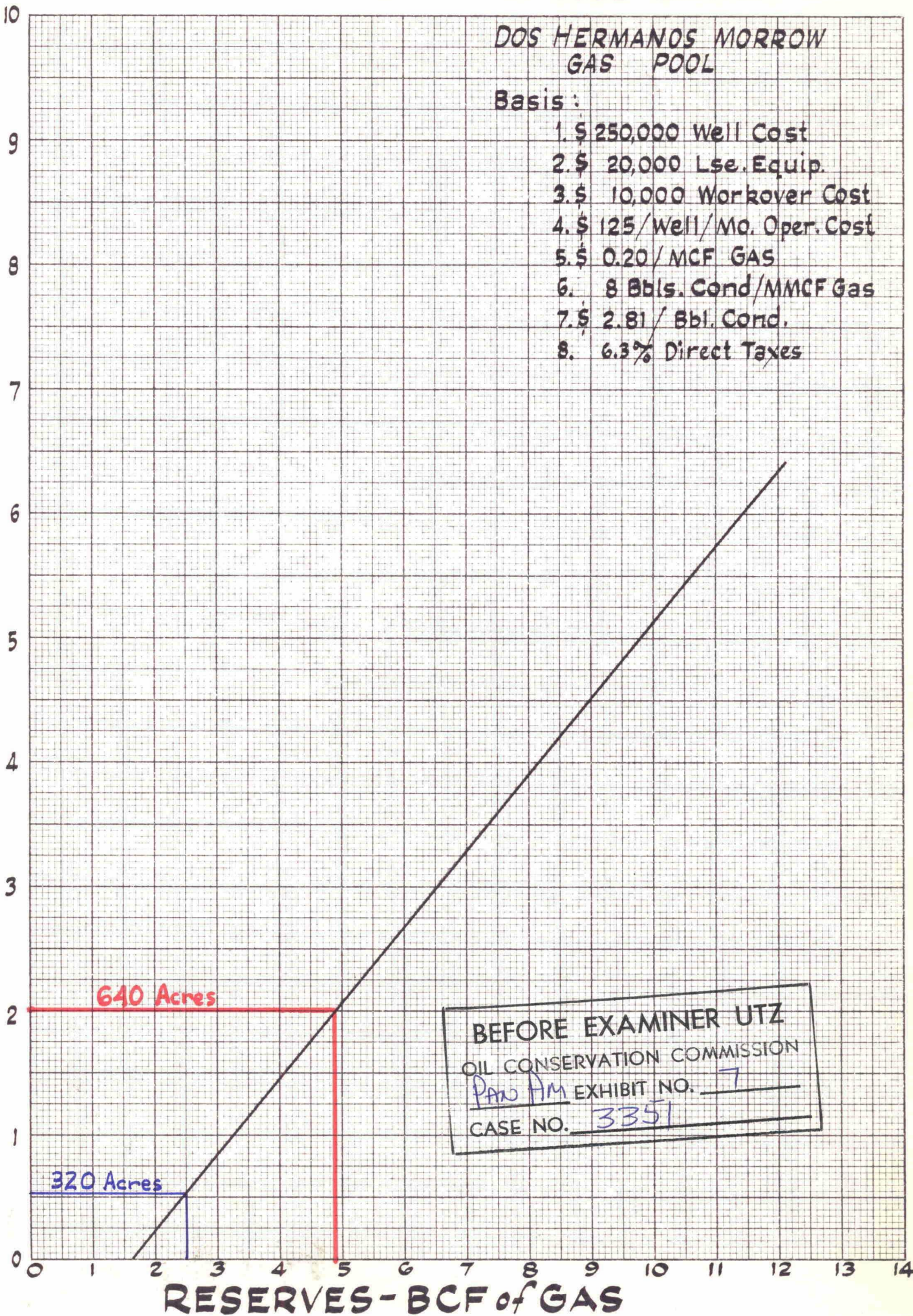   (from chart)

Payout = 35 months at 1.5 MMCFD

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ROI CHART

DOS HERMANOS MORROW
GAS POOL

Basis:
1. $ 250,000 Well Cost
2. $ 20,000 Lse. Equip.
3. $ 10,000 Workover Cost
4. $ 125/Well/Mo. Oper. Cost
5. $ 0.20/MCF GAS
6. 8 Bbls. Cond/MMCF Gas
7. $ 2.81/Bbl. Cond.
8. 6.3% Direct Taxes

640 Acres

320 Acres

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
PAN AM EXHIBIT NO. 7
CASE NO. 3351

RETURN on INVESTMENT

RESERVES - BCF of GAS

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