

Case Number 3206

Exhibit Number 4

March 8, 1967

AREA DRAINAGE COMPUTED FROM PROJECTED RECOVERY

(20% Recovery)

HIGH PLAINS UNIT WELL NO. 1  
HIGH PLAINS PENN POOL

<b>BEFORE EXAMINER NUTTER</b>
<b>OIL CONSERVATION COMMISSION</b>
EXHIBIT NO. <u>4</u>
CASE NO. <u>3026</u>

Reservoir Volume Calculations

Porosity (Sonic Log)	10 %
Water Saturation (Calculated)	32 %
Net Effective Pay	25 feet
Recovery Factor (Assumed)	20 %
Formation Volume Factor	1.653
Ultimate Recovery (Projected from Pressure versus Cumulative Production)	237,000 barrels

Oil in Place, Barrels per Acre-Foot

$(7758)(.10)(1.00-0.32)(1/1.653) = 319 \text{ bbls/ac-ft}$

Recoverable Oil, bbls per Acre-Foot

$(319) \times (0.20) = 64 \text{ bbls/ac-ft}$

Oil in Place, Barrels per Acre

$(319) \times (25) = 7,980 \text{ bbls/acre}$

Recoverable Oil, Barrels per Acre

$(7980) \times (0.20) = 1,600 \text{ bbls/acre}$

	<u>40 Acres</u>	<u>80 Acres</u>	<u>160 Acres</u>
Oil in Place, Barrels	319,000	639,000	1,280,000
Recoverable Oil, Barrels	64,000	128,000	256,000
Recoverable Gas, MMCF	115	230	460

Actual Area Drained from the Subject Well

$X = \frac{237,000}{1,600} = 148 \text{ Acres}$

Case Number 3206  
 Exhibit Number 5  
 March 8, 1967

ECONOMIC EVALUATION

(20% Recovery)

HIGH PLAINS UNIT WELL NO. 1  
 HIGH PLAINS PENN POOL  
 (Revised)

**BEFORE EXAMINER NUTTER**  
 OIL CONSERVATION COMMISSION  
*Copy* EXHIBIT NO. 5  
 CASE NO. 3026

BASIC DATA

- 1. Oil Value \$3.06 per barrel less \$0.14 per barrel trucking
- 2. Oil Purchaser Permian Corporation
- 3. Gas Value \$0.12 per MCF
- 4. Gas Purchaser Atlantic Refining Company
- 5. Net Interest 87.5%
- 6. Production Taxes 6.1%
- 7. Lifting Costs \$0.20 per barrel
- 8. Per Well Investment Costs \$145,000 for flowing well  
20,000 for artificial lift  
 \$165,000 Total Costs

ECONOMICS FOR ONE WELL

	Well Spacing		
	<u>40 Acre</u>	<u>*80 Acre</u>	<u>**160 Acre</u>
1. Recoverable Oil, Barrels	64,000	128,000	237,000
2. Recoverable Gas, MMCF	115	230	426
3. Oil Revenue	\$187,000	\$374,000	\$692,000
4. Gas Revenue	13,800	27,600	51,100
5. Total Revenue	200,800	401,600	743,100
6. Net Revenue after Royalty and Taxes	164,500	330,000	610,000
7. Operating Costs	12,800	25,600	47,400
8. Net Income	151,700	304,400	562,600
9. Investment	165,000	165,000	165,000
10. Profit (-Loss)	(-13,300)	139,400	397,600
11. Profit-to-Investment Ratio		0.84 to 1	2.40 to 1

\* The High Plains Unit No. 1 well has already drained more than is recoverable under eighty acre spacing.

\*\* Recoveries adjusted to anticipated recoveries as determined by production history.