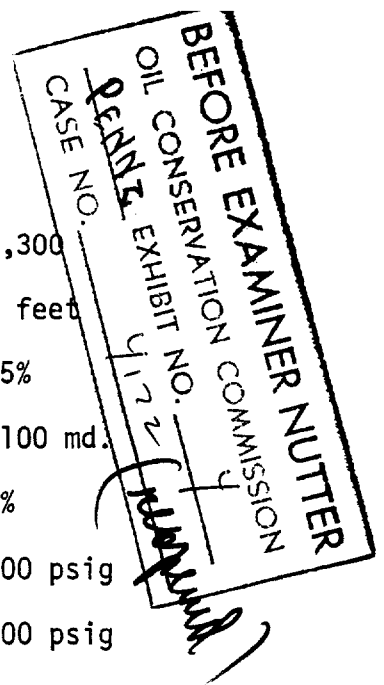


AVERAGE RESERVOIR AND FLUID PROPERTIES  
LOVINGTON NORTHEAST PENN FIELD  
LEA COUNTY, NEW MEXICO

Depth	11,300
Net Pay	23 feet
Porosity	8.5%
Permeability	1-100 md.
Connate Water	30%
Bottom Hole Pressure, Original	4000 psig
Bubble Point Pressure	3000 psig
Bottom Hole Temperature	155° F
Oil Gravity	44° API
Formation Volume Factor	1.45 RB/STB
Reservoir Energy	Solution-Gas Drive
Areal Extent	1320 acres



RESERVOIR CALCULATIONS

Reservoir Volume (Planimetered from Isopach map)  
= 29,821 ac.-ft.

Ultimate Recovery (Estimated from decline curves)  
= 2,637,800 barrels oil

Original Oil in Place  
=  $\frac{(7758) (29,821) (.085) (1-.30)}{1.45}$   
= 9,493,400 barrels oil

Recovery Factor  
=  $\frac{2,637,800}{9,493,400} \times 100$   
= 27.8%

Average Drainage Area =  $\frac{1320}{10} = \underline{132 \text{ acres per well}}$

NORMAL RECOVERY FACTOR FOR SOLUTION-GAS DRIVE RESERVOIR: 17-20%

By: B. C. Sinclair

Date: 8-17-70

*10 wells  
in res.*

*EXHIBIT 4*