

## MANCOS POOL

### Reservoir Simulation Study

#### ASSUMPTIONS

##### RESERVOIR CONDITIONS AND PROPERTIES

◦ Initial Pressure	1534 psia	@ +370'
◦ Initial Saturation Pressure	1534 psia	(C.O.U. L-11)
◦ Temperature	162° F	
◦ Porosity	1.0%±	
◦ Net Pay	2-30' Zones	(1 zone Modeled)
◦ Initial Water Saturation	10%	
◦ Irreducible Water Saturation	10%	
◦ Residual Oil Saturation	10%	
◦ Critical Gas Saturation	1.0%	
◦ OOIP	3000 STB/acre (BMG Calculation, Others)	
◦ Rock Compressibility	$10 \times 10^{-6}$ 1/psi (Gavilan Tech. Comm., Mobil Lindrith B Unit #38)	
◦ Relative Permeability	See Exhibit 3	
◦ Permeability	10 Darcy-Feet (BMG, Sun Calculations)	

##### FLUID PROPERTIES

###### Oil

◦ Obtained from C.O.U. L-11)	See Exhibit 4
◦ Initial Saturation Pressure	1534 psia
◦ Initial FVF	1.297
◦ Initial Solution Gas-Oil Ratio	478 SCF/STB

###### Water

◦ Density	1.021 gm/cc
◦ FVF	1.021
◦ Viscosity	0.44 CP
◦ Compressibility	$3.2 \times 10^{-6}$ 1/psi

BEFORE THE	
OIL COMMISSIONER'S COMMISSION	
State of Colorado	
Case No.	4
Subsidy No.	
Date filed	
March 1980	

Exhibit 2