

OPEN FLOW TEST DATA

DATE 8-25-80

Operator <u>MESA PETROLEUM CO.</u>		Lease <u>GAGE #3</u>	
Location <u>-20-30N-10W</u>		County <u>SAN JUAN</u>	State <u>NEW MEXICO</u>
Formation <u>DAKOTA</u>		Pool <u>BASIN</u>	
Casing: Diameter <u>7" / 4 1/2"</u>	Set At: Feet <u>3082 / 7401</u>	Tubing: Diameter <u>2 1/6</u>	Set At: Feet <u>7261</u>
Pay Zone: From <u>7360</u>	To <u>7288</u>	Total Depth: <u>7401</u>	Shut In
Stimulation Method <u>SAND FRAC.</u>		Flow Through Casing	Flow Through Tubing <u>XX</u>

Choke Size, inches <u>.7500</u>	Choke Constant: C <u>12.365</u>			
Shut-In Pressure, Casing, PSIG <u>750</u>	+ 12 = PSIA <u>762</u>	Days Shut-In	Shut-In Pressure, Tubing PSIG <u>2000</u>	+ 12 = PSIA <u>2012</u>
Flowing Pressure: P <u>155</u> PSIG	+ 12 = PSIA <u>167</u>		Working Pressure: Pw <u>155</u> PSIG	+ 12 = PSIA <u>167</u>
Temperature: T = <u>32</u> °F	Ft = <u>1.0281</u>	n = <u>.75</u>	Fpv (From Tables) <u>1.020</u>	Gravity <u>.650</u> Fg = <u>.9608</u>

CHOKE VOLUME = Q = C x P_i x F_t x F_g x F_{pv}

$$Q = (12.365 \times 167 \times 1.0281 \times .9608 \times 1.020) = \underline{2081} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{580644}{552755} \right)^n = (2081 \times 1.0505)^{.75} = (2081 \times 1.0376) =$$

$$Aof = \underline{2159} \text{ MCF/D}$$

TESTED BY JACK HALL

WITNESSED BY _____

