

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE Sept. 18, 1979

Operator <u>El Paso Natural Gas Company</u>		Lease <u>Mudge 12A (PM)</u>	
Location <u>SE 17-31-11</u>		County <u>San Juan</u>	State <u>New Mexico</u>
Formation <u>Mesa Verde</u>		Pool <u>Blanco</u>	
Casing: Diameter <u>4.500</u>	Set At: Feet <u>5632</u>	Tubing: Diameter <u>2 3/8</u>	Set At: Feet <u>5410</u>
Pay Zone: From <u>4954</u>	To <u>5530</u>	Total Depth: <u>5632</u>	Shut In <u>9-11-79</u>
Stimulation Method <u>Sand Water Frac</u>		Flow Through Casing	Flow Through Tubing <u>XXX</u>

Choke Size, Inches <u>.750</u>		Choke Constant: C <u>12.365</u>			
Shut-In Pressure, Casing, <u>---</u> PSIG	+ 12 = PSIA <u>---</u>	Days Shut-In <u>7</u>	Shut-In Pressure, Tubing <u>722</u> PSIG	+ 12 = PSIA <u>734</u>	
Flowing Pressure: P <u>271</u> PSIG	+ 12 = PSIA <u>283</u>		Working Pressure: P _w <u>Calc.</u> PSIG	+ 12 = PSIA <u>565</u>	
Temperature: <u>T = 60 °F</u>	F _t = <u>1.000</u>	n = <u>.75</u>	F _{pv} (From Tables) <u>1.028</u>	Gravity <u>.650</u>	F _g = <u>9608</u>

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = 12.365 \times 283 \times 1.000 \times .9608 \times 1.028 = 3456 \text{ MCF/D}$$

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

$$Aof = \left(\frac{538745}{219531} \right)^{.75} = (2.4541)^{.75} (3456) = (1.9607) (3456)$$

NOTE: Well Blew Dry Gas Throughout Test and Vented 337 MCF To The Atmosphere During the Test.

$$Aof = 6776 \text{ MCF/D}$$

TESTED BY C. Rhames

WITNESSED BY _____

C.R. Wagner
Well Test Engineer

