

OPEN FLOW TEST DATA

DATE September 26, 1977

Operator El Paso Natural Gas Company		Lease Roelofs A #3-A	
Location Unit J Sec. 9, T29N, R8W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5730'	Tubing: Diameter 2.375	Set At: Feet 5617'
Pay Zone: From 4767	To 5700	Total Depth: PB 5713	Shut In 9-11-77
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Choke Size, inches .750		Choke Constant: C 12.365	
Shut-In Pressure, Casing, PSIG	+ 12 = PSIA	Days Shut-In 15	Shut-In Pressure, Tubing PSIG
			+ 12 = PSIA
Flowing Pressure: P PSIG	+ 12 = PSIA	Working Pressure: P _w PSIG	+ 12 = PSIA
190	202	Calc.	405
Temperature: T = 59 °F	n =	Fpv (From Tables)	Gravity
Ft = 1.0010	.75	1.020	.660 Fg = .9535

$$\text{CHOKE VOLUME} = Q = C \times P_i \times F_i \times F_g \times F_{pv}$$

$$Q = 12.365 (202) (1.0010) (.9535) (1.020) = \underline{2432} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{485809}{321784} \right)^n = 2432 (1.5097)^{.75} = 2432 (1.3620)$$

$$Aof = \underline{3312} \text{ MCF/D}$$

Note: Blew mist of light hydro carbons throughout test. 314 MCF of gas vented during 3 hour test.

TESTED BY Ron Headrick

WITNESSED BY _____


Well Test Engineer