

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE September 8, 1977

Operator El Paso Natural Gas Company		Lease San Juan 27-4 Unit #109	
Location SE 23-27-04		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4 1/2	Set At: Feet 6499'	Tubing: Diameter 2 3/8	Set At: Feet 6463'
Pay Zone: From 5654	To 6469	Total Depth: 6499'	Shut In 8-3-77
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Meter Choke Size, Inches 4" MR		Orifice 2.750		Meter Choke Constant: C 41.10		Well tested thru a 3/4" variable choke.	
Shut-In Pressure, Casing, PSIG		+ 12 = PSIA		Days Shut-In 36		Shut-In Pressure, Tubing PSIG	
						+ 12 = PSIA	
Flowing Pressure: P MR 71		PSIG WH 352		+ 12 = PSIA MR 83		Working Pressure: P _w Calc.	
						PSIG 533	
Temperature: T = 47 °F		F _t = 1.0127		n = .75		F _{pv} (From Tables) 1.045	
						Gravity .670 F _g = 1.222	

$$\text{CHOKE VOLUME} = Q = C \times P_1 \times F_t \times F_g \times F_{pv}$$

$$Q = \text{Calculated from meter readings} = \underline{\hspace{2cm}} 2523 \underline{\hspace{2cm}} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1247689}{963600} \right)^n = 2523(1.2948)^{.75} = 2523(1.2138)$$

$$Aof = \underline{\hspace{2cm}} 3062 \underline{\hspace{2cm}} \text{ MCF/D}$$

Note: Well made 6.24 Bbls of oil and 33.28 Bbls of water. Well vented 257 MCF of gas to the atmosphere during test.

TESTED BY F. Johnson

WITNESSED BY _____

[Signature]
Well Test Engineer

