

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE March 27, 1978

Operator El Paso Natural Gas Company		Lease Lucerne A #4A	
Location NW 10-31-10		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco	
Casing: Diameter 4 1/2	Set At: Feet 5668'	Tubing: Diameter 1 1/4	Set At: Feet 3068'
Pay Zone: From 2986'	To 3064'	Total Depth: 5668'	Shut In 3-2-78
Stimulation Method Sandwater Frac		Flow Through Casing XXX	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 604	+ 12 = PSIA 616	Days Shut-In 25	Shut-In Pressure, Tubing PSIG 602	+ 12 = PSIA 614	
Flowing Pressure: P PSIG 60	+ 12 = PSIA 72		Working Pressure: P _w PSIG 75	+ 12 = PSIA 87	
Temperature: T = 60 °F	n = .85		F _p v (From Tables) 1.009	Gravity .670	F _g = .9463

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

$$Q = 12.365(72)(1.000)(.9463)(1.009) = \underline{\quad 850 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{379456}{371887} \right)^n = (1.0204)^{.85} = (850) = (850)(1.0173)$$

Note: Well blew dry gas throughout test.
Well vented 92 MCF to the atmosphere during test.

$$Aof = \underline{\quad 865 \quad} \text{ MCF/D}$$

TESTED BY J. Thurstonson

WITNESSED BY _____

C. R. Wagner
Well Test Engineer

