

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE March 1, 1978

Operator El Paso Natural Gas Company		Lease Lucerne A #2-A	
Location SE 9-31-10		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco	
Casing: Diameter 4 1/2	Set At: Feet 5663'	Tubing: Diameter 1 1/4	Set At: Feet 3040'
Pay Zone: From 2974	To 3058	Total Depth: 5663'	Shut In 2-2-78
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 525	+ 12 = PSIA 537	Days Shut-In 26	Shut-In Pressure, Tubing PSIG 525	+ 12 = PSIA 537	
Flowing Pressure: P PSIG 147	+ 12 = PSIA 159		Working Pressure: P _w PSIG 152	+ 12 = PSIA 164	
Temperature: T = 56 °F	n = .85		F _{pv} (From Tables) 1.014	Gravity .650	F _g = .9608

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

$$Q = 12.365(159)(1.004)(.9608)(1.014) = \underline{\quad 1923 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{288369}{261473} \right)^n = (1923)(1.1029)^{.85} = (1.0868)(1923)$$

$$Aof = \underline{\quad 2090 \quad} \text{ MCF/D}$$

Note: Well blew dry gas. Well vented 208 MCF of gas to the atmosphere during test.

TESTED BY J. Thurstonson

WITNESSED BY _____

C. R. [Signature]
Well Test Engineer

