

EL PASO NATURAL GAS COMPANY OPEN FLOW TEST DATA

DATE October 6, 1977

Operator El Paso Natural Gas Company		Lease Lucerne A #3-A	
Location Unit I Sec. 3, T31N, R10W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5510'	Tubing: Diameter 2.375	Set At: Feet 5429'
Pay Zone: From 4487	To 5450'	Total Depth: PB 5493'	Shut In 9-29-77
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 7	Shut-In Pressure, Tubing PSIG	+ 12 = PSIA	
			508	520	
Flowing Pressure: P PSIG	+ 12 = PSIA	Working Pressure: Pw PSIG	+ 12 = PSIA		
238	250	Calc.	492		
Temperature: T = 72 °F	F _t = .9887	n = .75	F _{pv} (From Tables) 1.024	Gravity .670	F _g = .9463

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

$$Q = 12.365(250)(.9887)(.9463)(1.024)$$

$$= 2962 \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{270400}{28336} \right)^n = (9.5426)^{.75} = 2962(2962)(5.4294)$$

$$Aof = 16082 \text{ MCF/D}$$

Note: Well blew dry gas. Well vented 377 MCF of gas to atmosphere during test.

TESTED BY Jim Thurstonson

WITNESSED BY _____

C.R. Hagan
Well Test Engineer

