

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE 7-23-74

Operator El Paso Natural Gas Company		Lease San Juan 27-5 Unit #176	
Location 1170/N, 1800/E, Sec 8, T-27-N, R-5-W		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapacito	
Casing: Diameter 2.875	Set At: Feet 3558	Tubing: Diameter No tubing	Set At: Feet ---
Pay Zone: From 3436	To 3484	Total Depth: PBT 3565 3547	Shut In 6-11-74
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365		Tubingless Completion	
Shut-In Pressure, Casing, PSIG 1082	+ 12 = PSIA 1094	Days Shut-In 12	Shut-In Pressure, Tubing PSIG No tubing	+ 12 = PSIA ---	
Flowing Pressure: P PSIG 171	+ 12 = PSIA 183		Working Pressure: P <sub>w</sub> Calculated	+ 12 = PSIA 236	
Temperature: T = 66 °F	F <sub>t</sub> = .9943	n = .85	F <sub>pv</sub> (From Tables) 1.0170	Gravity .655	F <sub>g</sub> = .9571

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

$$Q = 12.365(183)(.9943)(.9571)(1.0170) = 2190 \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{1196836}{1141140} \right)^n =$$

$$2190(1.0488)^{.85} = 2190(1.0413)$$

$$Aof = 2281 \text{ MCF/D}$$

NOTE: The well produced a dry gas flow.

TESTED BY Carl Rhames

WITNESSED BY

*Loren W Fothergill*  
Loren W. Fothergill  
Well Test Engineer  
7-24-74

