

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE July 3, 1968

Operator El Paso Natural Gas Company		Lease San Juan 27-5 Unit No. 109	
Location 1190'N, 1850'E, Sec. 3, T-27-N, R-5-W		County Rio Arriba	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7890	Tubing: Diameter 2.375	Set At: Feet 7641
Pay Zone: From 7660	To 7860	Total Depth: 7890	Shut In 6-14-68
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2679	+ 12 = PSIA 2691	Days Shut-In 19	Shut-In Pressure, Tubing PSIG 2719	+ 12 = PSIA 2731	
Flowing Pressure: P PSIG 260	+ 12 = PSIA 272	Working Pressure: P _w PSIG 1005	+ 12 = PSIA 1017		
Temperature: T = 81 °F	F _t = .9804	n = .750	F _{pv} (From Tables) 1.028	Gravity .700	F _g = .9258

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

$$Q = (12.365)(272)(.9804)(.9258)(1.028) = 3138 \text{ MCF/D}$$

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

$$Aof = \left(\frac{7458361}{6424072} \right)^n = (3138)(1.1610)^{.75} = (3138)(1.1182)$$

NOTE: Blew light fog of water for entire test.

$$Aof = 3509 \text{ MCF/D}$$

TESTED BY Jesse B. Goodwin

CHECKED BY H. E. McAnally



H. L. Kendrick
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