

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE June 27-1967

Operator El Paso Natural Gas Company		Lease San Juan 27-1 North	
Location 1650'N, 1550'E, Sec. 1, T-27-N, R-5-W		County Rio Arriba	State New Mexico
Formation Dakota		Pool Barr	
Casing: Diameter 4.000	Set At: Feet 8700	Tubing: Diameter 2.375	Set At: Feet 8700
Pay Zone: From 8430	To 8628	Total Depth: 1400	Shut In 1400
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2436	+ 12 = PSIA 2448	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 2436	+ 12 = PSIA 2448	
Flowing Pressure: P PSIG 305	+ 12 = PSIA 317	Working Pressure: P _w PSIG 1142	+ 12 = PSIA 1154		
Temperature: T = 73 °F	F _t = .9877	n = .75	F _{pv} (From Tables) 1.025	Gravity .680	F _g = .99

CHOKE VOLUME = Q = C × P_i × F_t × F_g × F_{pv}

$$Q = (12.365)(317)(.9877)(.9837)(1.025) = 3904 \text{ MCF/D}$$

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

$$Aof = \left(\frac{5992704}{4660988} \right)^n = (3904)(1.2857)^{.75} = (3904)(1.2075)$$

NOTE: The well unloaded a large slug of mine. and water after 5 minutes and then reduced to a small slug of dist. and water every 5 minutes to the end of the test.

$$Aof = 4714 \text{ MCF/D}$$

TESTED BY H. E. McAnallyCHECKED BY T. D. Grant

H. L. Kendrick
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