

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE 6-28-67

Operator El Paso Natural Gas Company		Lease Howell K No. 1 (OWO)	
Location 1750'S, 1650'W, Sec. 21, T-30-N, R-8-W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 4373	Tubing: Diameter 2.375	Set At: Feet 400
Pay Zone: From 400	To 4824	Total Depth: 4873	Shut In 6-21-67
Stimulation Method Steam Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 884	+ 12 = PSIA 896	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 884	+ 12 = PSIA 896	
Flowing Pressure: P PSIG 365	+ 12 = PSIA 377		Working Pressure: Pw PSIG 779	+ 12 = PSIA 791	
Temperature: T = 84 °F	n = .75		Fpv (From Tables) 1.033	Gravity .665 Fg = .9498	

$$\text{CHOKE VOLUME} = Q = C \times P_1 \times F_1 \times F_g \times F_{pv}$$

$$Q = (12.365)(377)(.9777)(.9498)(1.033) = \underline{4472} \text{ MCF/D}$$

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

$$Aof = \left(\frac{802816}{177135} \right)^n = (4.5322)^{.75} (4472) = (3.1062)(4472)$$

NOTE: Blew light fog of distillate and water for entire test

$$Aof = \underline{13891} \text{ MCF/D}$$

TESTED BY Jesse B. GoodwinCHECKED BY A. J. Ioleit

H. L. Kendrick
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