

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE August 16, 1963

Operator El Paso Natural Gas Company		Lease Hargrave No. 3 (O&G)	
Location 990'S, 1150'N, Sec. 16, T-27-N, R-10-W		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Pulcher-Kutz	
Casing: Diameter 2.375	Set At: Feet 1980	Tubing: Diameter No Tubing	Set At: Feet ----
Pay Zone: From 1870	To 1882	Total Depth: 1980	Shut In 8-6-63
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365		Tubingless Correlation	
Shut-In Pressure, Casing, PSIG 497	+ 12 = PSIA 449	Days Shut-In 10	Shut-In Pressure, Tubing PSIG No Tubing	+ 12 = PSIA ----	
Flowing Pressure: P PSIG 40	+ 12 = PSIA 42	Working Pressure: Pw PSIG 40	+ 12 = PSIA 52		
Temperature: T = 75 °F	n = .85	Fpv (From Tables) 1.004	Gravity .660	Fg = .9535	

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

$$Q = (12.365)(42)(.9859)(.9535)(1.004) = \underline{490} \text{ MCF/D}$$

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

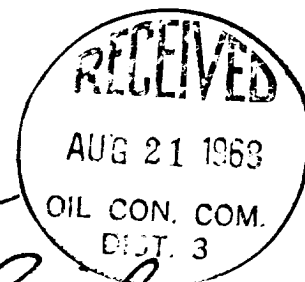
$$Aof = \left(\frac{201601}{199200} \right)^n = (490)(1.0120)^{.85} = (490)(1.0102)$$

Note: The well produced a heavy spray of water throughout the test period.

$$Aof = \underline{495} \text{ MCF/D}$$

TESTED BY Dannie Roberts

Calculated

WITNESSED BY T. B. Grant

H. L. Kendrick
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