

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE July 19, 1968

Operator El Paso Natural Gas Company		Lease Hardie D No. 1 (OWO)	
Location 1090'S, 1090'W, Sec. 12, T-28-N, R-8-W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 2.875	Set At: Feet 5186	Tubing: Diameter No Tubing	Set At: Feet
Pay Zone: From 4532	To 5120	Total Depth: 5186	Shut In 7-10-68
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches 2.5" plate, 4" MR		Choke Constant: C 33.2928		TUBINGLESS COMPLETION	
Shut-In Pressure, Casing, PSIG 721	+ 12 = PSIA 733	Days Shut-In 9	Shut-In Pressure, Tubing PSIG NO TUBING	+ 12 = PSIA	
Flowing Pressure: P PSIG 132 WH; 51 MR	+ 12 = PSIA 144 WH; 63 MR	Working Pressure: P _w PSIG Calc.	+ 12 = PSIA 75		
Temperature: T = 76 °F	Ft = 9850	n = .75	Fpv (From Tables) 1.010	Gravity .700	Fg = 1.1952

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

$$Q = \text{Calculated From Orifice Meter Readings} = \underline{1632} \text{ MCF/D}$$

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

$$A_{of} = \left(\frac{537289}{531513} \right)^n$$

= (1646)(1.0108)^{.75} = (1646)(1.0081)
NOTE: The well produced 18.46 bbls. of 49.2° API gravity oil into the tank during the three hour test.

$$A_{of} = \underline{1645} \text{ MCF/D}$$

TESTED BY D. R. Roberts & H. E. McAnally
CALCULATED
WITNESSED BY G. A. Lippman



H. L. Kendrick
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