

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE December 18, 1963

Operator El Paso Natural Gas Company		Lease Duff No. 2	
Location 1650'S, 1090'W, Sec. 5, T-29-N, R-11-W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Undesignated	
Casing: Diameter 4.500	Set At: Feet 3778	Tubing: Diameter 2.375	Set At: Feet 3816
Pay Zone: From 3716	To 3728	Total Depth: 3781	Shut In 12-9-63
Stimulation Method Sand/Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 859	+ 12 = PSIA 871	Days Shut-In 9	Shut-In Pressure, Tubing PSIG 856	+ 12 = PSIA 868	
Flowing Pressure: P PSIG 196	+ 12 = PSIA 208		Working Pressure: P _w PSIG 583	+ 12 = PSIA 595	
Temperature: T = 88 °F	n = .75		F _{pv} (From Tables) 1.022	Gravity .740	F _g = .9005

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

$$Q = (12.365)(208)(.9741)(.9005)(1.022) = \underline{2306} \text{ MCF/D}$$

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

$$Aof = \left(\frac{758,641}{404,616} \right)^n = (1.8749)^{.75} (2306) = (1.6025)(2306)$$

$$Aof = \underline{3695} \text{ MCF/D}$$

NOTE: Unloaded slug of water after 5 minutes
blew medium spray of water throughout
balance of test.

TESTED BY D. E. MortensenChecked by W. D. Dawson
WITNESSED BY

RECEIVED
DEC 20 1963
OIL CON. COM.
DIST. 3
Lewis D. Galloway
Lewis D. Galloway