

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE October 28, 1968

Operator El Paso Natural Gas Company		Lease Howell A No. 4	
Location 1550'N, 900'W, Sec. 4, T-30-N, R-8-W		County San Juan	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7714	Tubing: Diameter 2.375	Set At: Feet 7441
Pay Zone: From 7474	To 7681	Total Depth: 7714	Shut In 10-11-68
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2366	+ 12 = PSIA 2378	Days Shut-In 17	Shut-In Pressure, Tubing PSIG 2375	+ 12 = PSIA 2387	
Flowing Pressure: P PSIG 166	+ 12 = PSIA 178		Working Pressure: P _w PSIG 714	+ 12 = PSIA 726	
Temperature: T = 79 °F	F _t = .9822	n = .75	F _{pv} (From Tables) 1.018	Gravity 700	F _g = .9258

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

$$Q = (12.365)(178)(.9822)(.9258)(1.018) = \underline{2037} \text{ MCF/D}$$

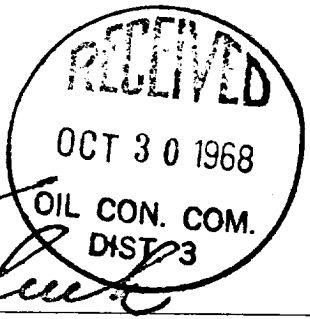
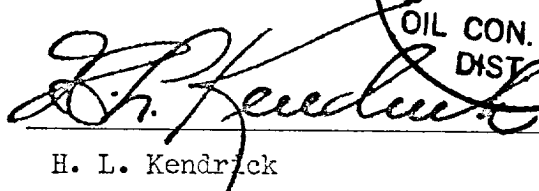
$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{5697769}{5170693} \right)^n = (2037)(1.1019)^{.75} = (2037)(1.0755)$$

Note: The well produced a light fog of distillate throughout the test period.

$$Aof = \underline{2191} \text{ MCF/D}$$

TESTED BY T. D. NortonCalculated
WITNESSED BY T. B. GrantChecked by C. R. Wagner



 H. L. Kendrick