

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE May 21, 1968

Operator El Paso Natural Gas Company		Lease Martin No. 3-1	
Location 999'E, 999'E, Sec. 3, T-22-N, R-11-W		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Antec	
Casing: Diameter 2.475	Set At: Feet 2147	Tubing: Diameter NO TUBING	Set At: Feet
Pay Zone: From 9090	To 2075	Total Depth: 2147	Shut In 5-15-68
Stimulation Method Sand Water Zone		Flow Through Casing K	Flow Through Tubing

Choke Size, Inches .75		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 371	+ 12 = PSIA 383	Days Shut-In 7	Shut-In Pressure, Tubing PSIG NO TUBING	+ 12 = PSIA	
Flowing Pressure: P PSIG 87	+ 12 = PSIA 99	Working Pressure: P _w PSIG 0.10	+ 12 = PSIA 111		
Temperature: T = 66 °F	F _t = .9943	n = .85	F _{pv} (From Tables) 1.009	Gravity .610	F _g = .9998

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

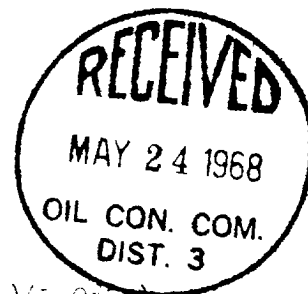
$$Q = (12.365)(99)(.9943)(.9998)(1.009) = 1154 \text{ MCF/D}$$

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

$$Aof = \left(\frac{148006}{135307} \right)^n = (1154)(1.1011)^{.85} = (1154)(1.0955)$$

NOTE: The well made light fog three minutes after start of test and blew a mist of water and drip through remainder of test.

$$Aof = 1252 \text{ MCF/D}$$

TESTED BY B. BroughtonCALCULATED
WITNESSED BY Tom B. Grant

H. L. Hendrick