

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADATE March 23, 1976

Operator Koch Industries		Lease Walker #5	
Location NE 13-31-10		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco	
Casing: Diameter 4 1/2"	Set At: Feet 3548'	Tubing: Diameter 2 3/8"	Set At: Feet 3372'
Pay Zone: From 3367'	To 3423'	Total Depth: 3548'	Shut In 3-16-76
Stimulation Method SandwaterFrac		Flow Through Casing	Flow Through Tubing XX

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 843	+ 12 = PSIA 855	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 842	+ 12 = PSIA 854	
Flowing Pressure: P PSIG 90	+ 12 = PSIA 102		Working Pressure: P <sub>w</sub> PSIG 224	+ 12 = PSIA 236	
Temperature: T = 58 °F	F <sub>t</sub> = 1.0019	n = .85	F <sub>pv</sub> (From Tables) 1.009	Gravity .670	F <sub>g</sub> = .9463

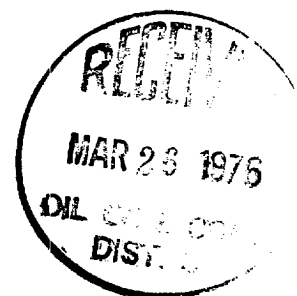
$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = (12.365)(102)(1.0019)(.9463)(1.009) = \underline{\quad 1207 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{729316}{673620} \right)^n = (1207)(1.083)^{.85} = (1207)(1.070)$$

$$Aof = \underline{\quad 1291 \quad} \text{ MCF/D}$$

TESTED BY Koch IndustriesWITNESSED BY Roger Hardy

*JW Andes*  
Well Test Engineer