

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE February 27, 1978

Operator El Paso Natural Gas Company		Lease Mudge #5-A	
Location NW 3-31-11		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Blanco	
Casing: Diameter 4 1/2"	Set At: Feet 5549'	Tubing: Diameter 1 1/4"	Set At: Feet 2900'
Pay Zone: From 2828	To 2896'	Total Depth: 5549'	Shut In 1-22-78
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches		Choke Constant: C			
Shut-In Pressure, Casing, PSIG 992	+ 12 = PSIA 1004	Days Shut-In 36	Shut-In Pressure, Tubing PSIG 992	+ 12 = PSIA 1004	
Flowing Pressure: P PSIG 152	+ 12 = PSIA 164		Working Pressure: P _w PSIG 155	+ 12 = PSIA 167	
Temperature: T = 55 °F	n = 1.005		F _{pv} (From Tables) 1.015	Gravity .650	F _g = .9608

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

$$Q = 12.365(164)(1.005)(.9608)(1.015) = 1987 \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1008016}{980127} \right)^n = (1987)(1.0285) = 2035 \text{ MCF/D}$$

$$Aof = 2035 \text{ MCF/D}$$

Note: Well blew dry gas. Well vented 227 MCF to the atmosphere.

TESTED BY D. Wright

WITNESSED BY _____

C.R. Hagan
Well Test Engineer