

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

Dual Completion

DATE November 23, 1956

Operator El Paso Natural Gas Company		Lease Ludwick #13	
Location 1750'N, 1720'E, Sec. 5-29-10		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Aztec	
Casing: Diameter 7"	Set At: Feet 4200	Tubing: Diameter 2"	Set At: Feet 4642
Pay Zone: From 2308	To 2331	Total Depth: 4894 c/o 4680	
Stimulation Method Sand Water Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750		Choke Constant 14.1605		Packer set at 2460'	
Shut-In Pressure, Casing, 1176 (MV)	PSIG	12 PSIA 1188	Shut-In 14	Shut-In Pressure, Tubing 642	PSIG
Flowing Pressure, P 147	PSIG	12 PSIA 159		Working Pressure, Pw Calculated	PSIG
Temperature, T 55	F	.85		Ppv (From Tables) 1.015	Gravity .670

CHOKE VOLUME $Q = C \times P_1 \times F_1 \times F_2 \times F_{pv}$

$$Q = 14.1605 \times 159 \times 1.0048 \times .9463 \times 1.015 = 2173 \quad \text{MCF/D}$$

$$\text{OPEN FLOW } Aof = Q \left(\frac{P_1^2}{P_2^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{427,716}{402,116} \right)^{.85} (1.0636) \times 2173 = 1.0538 \times 2173$$

$$Aof = 2290 \quad \text{MCF/D}$$

TESTED BY K. C. McBride

WITNESSED BY _____

cc: (6) E. J. Coel, Jr.
(1) E. C. Arnold, Oil Conservation Commission

L. D. Galloway
L. D. Galloway