

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE August 26, 1959

Operator El Paso Natural Gas		Lease Russell No. 4	
Location 1500N, 1650E; 24-28-8		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 5-1/2	Set At: Feet 5179	Tubing: Diameter 2"	Set At: Feet 5109
Pay Zone: From 4438	To 5130	Total Depth: 5180 c/o 5150	Shut in: 8/12/59
Stimulation Method Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .75	Choke Constant: C 12.365	5-1/2 liner from 2932-5179	
Shut-In Pressure, Casing, PSIG 1048	12 = PSIA 1060	Days Shut-In 14	Shut-In Pressure, Tubing, PSIG - 12 = PSIA 1030 1042
Flowing Pressure: P, PSIG 333	12 = PSIA 345	Working Pressure: P _w , PSIG 788	- 12 = PSIA 800
Temperature: T, F 70	n .75	F _{pv} (From Tables) 1.037	Gravity .695

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_r \times F_g \times F_{pv}$$

$$Q = 12.365 \times 345 \times .9905 \times .9292 \times 1.037 = 4072 \text{ MCF/D}$$

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

$$Aof = \left(\frac{1123600}{483600} \right)^n \quad 2.3234^{.75} \times 4072 = 1.8810 \times 4072$$

$$Aof = 7659 \text{ MCF/D}$$

TESTED BY D. Mortensen

WITNESSED BY _____

Checked By H. E. Dawson

Lewis D. Galloway
L. D. Galloway

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>3</u>		
DISTRIBUTION		
	NO. FURNISHED	
Operator		
Santa Fe	<u>1</u>	
Production Office		
State Land Office		
U. S. G. S.	<u>1</u>	
Transporter		
File	<u>1</u>	☒