

004

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

Company Distribution Only

DATE 2/14/73

Operator Lively Exploration		Lease Lively #3	
Location 1080/S, 1500/W, Sec. 9, T29N, R8W		County San Juan	State NM
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7684	Tubing: Diameter 1.660	Set At: Feet 7594
Pay Zone: From 7453	To 7608	Total Depth: 7684	Shut In 1/18/73
Stimulation Method SWF		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2323	+ 12 = PSIA 2335	Days Shut-In 27	Shut-In Pressure, Tubing PSIG 2317	+ 12 = PSIA 2329	
Flowing Pressure: P PSIG 217	+ 12 = PSIA 229		Working Pressure: P _w PSIG 1854	+ 12 = PSIA 1866	
Temperature: T = 41 °F	n = F _t = 1.0188		F _{pv} (From Tables) 1.025	Gravity .650	F _g = .9608

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

$$Q = (12.365) (229) (1.0188) (.9608) (1.025) = 2841 \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{5452225}{1970269} \right)^n = (2841) (2.7620)^{.75} = (2841) (2.1456)$$

$$Aof = 6096 \text{ MCF/D}$$

NOTE: The well produced a light mist of distillate and water throughout the test.

TESTED BY Jim Jacobs (Dugan Prod.)

WITNESSED BY H. E. McAnally (EPNG)



William D. Welch
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Well Test Engineer