

# EL PASO NATURAL GAS COMPANY

## OPEN FLOW TEST DATA

DATE June 3, 1965

Operator <b>El Paso Natural Gas Company</b>		Lease <b>Kernaghan No. 3 (OWWO)</b>	
Location <b>990'N, 1650'E, Section 29, T-31-N, R-8-W</b>		County <b>San Juan</b>	State <b>New Mexico</b>
Formation <b>Mesa Verde</b>		Pool <b>Blanco</b>	
Casing: Diameter <b>4.500</b>	Set At: Feet <b>5888</b>	Tubing: Diameter <b>2.375</b>	Set At: Feet <b>5795</b>
Pay Zone: From <b>5320</b>	To <b>5818</b>	Total Depth: <b>5888</b>	Shut In <b>5-27-65</b>
Stimulation Method <b>Sand Water Frac</b>		Flow Through Casing	Flow Through Tubing <b>X</b>

Choke Size, Inches <b>.750</b>		Choke Constant: C <b>12.365</b>			
Shut-In Pressure, Casing, PSIG <b>818</b>	+ 12 = PSIA <b>830</b>	Days Shut-In <b>7</b>	Shut-In Pressure, Tubing PSIG <b>819</b>	+ 12 = PSIA <b>831</b>	
Flowing Pressure: P PSIG <b>216</b>	+ 12 = PSIA <b>228</b>		Working Pressure: P <sub>w</sub> PSIG <b>706</b>	+ 12 = PSIA <b>718</b>	
Temperature: T = <b>72</b> °F      F <sub>t</sub> = <b>.9887</b>		n = <b>.75</b>	Fpv (From Tables) <b>1.018</b>	Gravity <b>.620</b>	F <sub>g</sub> = <b>.9837</b>

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

$$Q = (12.365) (228) (.9887) (.9837) (1.018) = \underline{2,791} \text{ MCF/D}$$

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

$$A_{of} = \left( \frac{690,561}{175,037} \right)^n = (3.9452)^{.75} (2791) = (2.7993) (2791)$$

$$A_{of} = \underline{7,813} \text{ MCF/D}$$

NOTE: Well made light spray of water and distillates throughout the test.

TESTED BY Dan Roberts  
 CHECKED BY H. E. McNally  
 WITNESSED BY

*Lewis D. Galloway*  
 Lewis D. Galloway

