

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

CORRECTED COPY

DATE October 31, 1973

Operator <u>El Paso Natural Gas Company</u>		Lease <u>San Juan 27-5 Unit #147</u>	
Location <u>790/N. 840/E. Sec. 36, T27N, R5W</u>		County <u>Rio Arriba</u>	State <u>New Mexico</u>
Formation <u>Dakota</u>		Pool <u>Basin</u>	
Casing: Diameter <u>4.500</u>	Set At: Feet <u>8541'</u>	Tubing: Diameter <u>1 1/2</u>	Set At: Feet <u>8492'</u>
Pay Zone: From <u>8300</u>	To <u>8510</u>	Total Depth: <u>8541</u>	Shut In <u>10-6-73</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing <u>XX</u>	Flow Through Tubing

Orifice Choke Size, Inches <u>2.750 Plate, 4" MR</u>		Choke Constant: C <u>41.10</u>		Tested thru a <u>3/4" Variable choke</u>	
Shut-In Pressure, Casing, PSIG <u>2415</u>	+ 12 = PSIA <u>2427</u>	Days Shut-In <u>25</u>	Shut-In Pressure, Tubing PSIG <u>1485</u>	+ 12 = PSIA <u>1497</u>	
Flowing Pressure: P PSIG <u>154 MR, 222 WH</u>	+ 12 = PSIA <u>166 MR, 234 WH</u>		Working Pressure: P <sub>w</sub> PSIG <u>1444</u>	+ 12 = PSIA <u>1456</u>	
Temperature: T = <u>64°F</u>	F <sub>t</sub> = <u>.9962</u>	n = <u>.75</u>	F <sub>p</sub> v (From Tables) <u>1.015</u>	Gravity <u>.655</u>	F <sub>g</sub> = <u>1.236</u>

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

$$Q = \text{Calculated from orifice meter readings} = \underline{3305} \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{5890329}{3770393} \right)^n = (3305) (1.5623)^{.75} = (3305) (1.3974)$$

$$Aof = \underline{4618} \text{ MCF/D}$$

Note: The well produced 12 bbls of 57.8°  
Apl gravity oil and 46 bbls. of water  
during the test.

TESTED BY C. Rhames, Don Norton

WITNESSED BY \_\_\_\_\_

*H. E. McNally*  
Well Test Engineer

