

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE September 15, 1977

Operator El Paso Natural Gas Company		Lease San Juan 27-4 Unit #109	
Location SE 23-27-04		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapacito Ext.	
Casing: Diameter 4 1/2	Set At: Feet 6449'	Tubing: Diameter 1 1/4	Set At: Feet 4031'
Pay Zone: From 3956	To 4028'	Total Depth: 6499'	Shut In 8-5-77
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Plate Choke Size, Inches 2.750", 4" M.R.		Choke Constant: C 41.10		Tested through a 3/4" variable choke	
Shut-In Pressure, Casing, PSIG 1102	+ 12 = PSIA 1114	Days Shut-In 43	Shut-In Pressure, Tubing PSIG 1099	+ 12 = PSIA 1111	
Flowing Pressure: P PSIG 34 M.R.; 117 W.H.	+ 12 = PSIA 46 M.R., 129 W.H.		Working Pressure: P <sub>w</sub> PSIG 119	+ 12 = PSIA 131	
Temperature: T = 56 °F	n = 0.85		F <sub>pv</sub> (From Tables) 1.004	Gravity 0.690	F <sub>g</sub> = 1.004

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

$$Q = \text{Calculated from orifice meter readings} = 1353 \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{1240996}{1223835} \right)^n = (1353)(1.0140)^{.85} = (1353)(1.0140)$$

$$Aof = 1369 \text{ MCF/D}$$

Note: The well produced no liquids during the test. The well produced 247 MCF of gas during the test.

TESTED BY D. Howell

WITNESSED BY

*[Signature]*  
Well Test Engineer

