

OPEN FLOW TEST DATA

DATE January 21, 1976

Operator <u>Koch Industries</u>		Lease <u>Walker #3</u>	
Location <u>SE 10-31-10</u>		County <u>San Juan</u>	State <u>New Mexico</u>
Formation <u>Picture Cliff</u>		Pool <u>Undesignated</u>	
Casing: Diameter <u>4 1/2</u>	Set At: Feet <u>3109'</u>	Tubing: Diameter <u>2 3/8</u>	Set At: Feet <u>2947'</u>
Pay Zones From <u>9942</u>	To <u>2969'</u>	Total Depth: <u>3039'</u>	Shut In <u>1-12-76</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing	Flow Through Tubing <u>XX</u>

Choke Size, Inches <u>.750</u>		Choke Constant: C <u>12.365</u>	
Shut-In Pressure, Casing, PSIG <u>887</u>	+ 12 = PSIA <u>899</u>	Days Shut-In <u>9</u>	Shut-In Pressure, Tubing PSIG <u>887</u>
Flowing Pressure: P PSIG <u>110</u>	+ 12 = PSIA <u>122</u>	Working Pressure: Pw PSIG <u>274</u>	+ 12 = PSIA <u>286</u>
Temperatures: T = <u>62 °F</u> Ft = <u>.9981</u>	n = <u>.85</u>	Fpv (From Tables) <u>1.012</u>	Gravity <u>.670</u> Fg = <u>.9463</u>

$$Q_{JOKE VOLUME} = Q = C \times P_r \times F_r \times F_g \times F_{pv}$$

$$Q = 12.365(122)(.9981)(.9463)(1.012)$$

$$= \underline{1442} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{808201}{726405} \right)^n = 1442(1.113)^{.85} = (1.095)(1442)$$

$$Aof = \underline{1579} \text{ MCF/D}$$

Note: Well blew dry gas throughout test.

TESTED BY Koch Industries

WITNESSED BY Norton

C. R. G. Kaper
Well Test Engineer

