

OPEN FLOW TEST DATA

Date: 6-6-73

Operator: William C. Russell Lease: Graham #53

Location: 10-27N-09W County: San Juan State: N.M.

Formation: Nasa Verde Pool: NV

Casing: 4 1/2 " Set @ 4415 ' Tubing: 1 1/2 " Set @ 4415

Pay Zone: 4330 ' To: 4430 ' Total Depth:

Choke Size: 3/4" THG " Choke Constant = C = 12.365

Stimulation Method: Flow Through: Casing Tubing

Shut-in Pressure Casing: 775 psig / 12 = 787 psia (Shut-in 8 days)

Shut-in Pressure Tubing: 760 psig / 12 = 772 psia

Flowing Pressure: P : 590 psig / 12 = 602 psia

Working Pressure: P_w : 120 psig / 12 = 132 psia

Temperature: T : 45 °F / 460 = 504 °Absolute

F_{pv} (from tables) : 1009 Gravity .670 n

$$\text{Choke Volume} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$12.365 \times 120 \times 1.0147 \times .9463 \times 1009$$

$$Q = \underline{\hspace{2cm}} = \underline{1438} \text{ MCF/D}$$

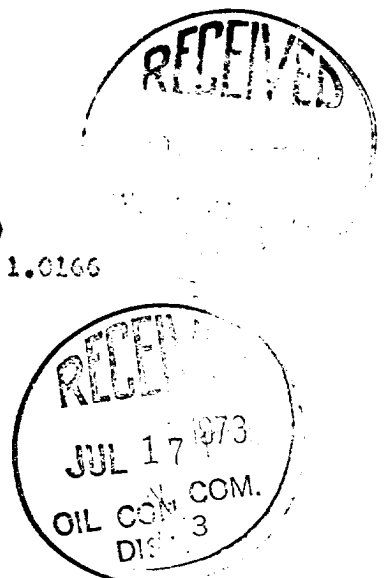
Open Flow - Aof = Q

$$Aof = \left[\frac{P_c^2 - P_w^2}{P_c^2} \right]^{1/2} \times \left[\frac{595,984}{582,988} \right]^{1/2} \times (75) = 1.0223 = 1.0166$$

Aof = figured at 102 1,462 MCF/D

Tested By: Robert A. D. [Signature]

Witnessed By: W. C. Russell



Geologic Inc
B. H. Myers