

OPEN FLOW TEST DATA

Date: 6/2/75

Operator: William C. Russell Lease: Graham 51A

Location: 10-27N-8W County: San Juan State: N.M.

Formation: Mesa Verde Pool: Blanco MV

Casing: 4 1/2 " Set @ 4594 ' Tubing: 1 1/2 " Set @ 4446

Pay Zone: 4380 ' To: 4530 ' Total Depth: 4594

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

Stimulation Method: _____ Flow Through: Casing _____ Tubing X

Shut-in Pressure Casing: 1036 psig / 12 = 1048 psia (Shut-in 8 days)

Shut-in Pressure Tubing: 1036 psig / 12 = 1048 psia

Flowing Pressure: P : 153 psig / 12 = 165 psia

Working Pressure: P_w : 602 psig / 12 = 614 psia

Temperature: T : 47 °F / 460 = 507 °Absolute

F_{pv} (from tables) : 1.017 Gravity 620 Est. n 75

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

$$165 \times 12.365 \times 1.0127 \times .9837 \times 1.017$$

$$Q = \underline{\hspace{2cm}} = \underline{2058} \text{ MCF/D}$$

Open Flow - Aof = Q

$$Aof = \frac{\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n}{\left[\frac{1,098,304}{721,308} \right]^n} = 1.5227 = 1.3707$$

$$Aof = \underline{2821} \text{ MCF/D}$$

Tested By: R. C. Dintelman

Witnessed By: _____

Calculated By
B. H. Hoyer
GeoElectric, Inc.