

OPEN FLOW TEST DATA

Date: April 20, 1978

Operator: C & E Operators, Inc.

Lease: Heaton #1A

Location: 33-304-10W

County: San Juan State: N.M.

Formation: Mesa Verde

Pool: Blanco MV

Casing: 4 1/2 " Set @ ' Tubing: 2 7/8 " Set @

Pay Zone: ' To: ' Total Depth:

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

Stimulation Method: S.W.F. Flow Through: Casing Tubing

Shut-in Pressure Casing: 1200 psig / 12 = 1212 psia (Shut-in 7 days)

Shut-in Pressure Tubing: 755 psig / 12 = 767 psia

Flowing Pressure: P : 280 psig / 12 = 292 psia

Working Pressure: P_w : 900 psig / 12 = 912 psia

Temperature: T : 60 °F / 460 = 520 °Absolute

F_{pv} (from tables) : 1.032 Gravity 670 n 75

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

$$Q = 12.365 \times 292 \times 1.0000 \times .9463 \times 1.032 = 3525 \text{ MCF/D}$$

$$\text{Open Flow} - Aof = Q$$

$$Aof = \left[\frac{P_c^2 - P_w^2}{1,468,944} \right]^n = 2.3053 - 1.3708$$

$$Aof = 6594 \text{ MCF/D}$$

Tested By: A. L. G. [Signature]

Witnessed By: B. W. [Signature]