

# OPEN FLOW TEST DATA

Date: February 13, 1956  
 Operator: El Paso Natural Gas Company Lease: Huerfano Unit #46  
 Location: 1650S, 1650W, Sec. 23, T 26N, R 9W County: San Juan State: N. M.  
 Formation: Pictured Cliff Pool: Ballard  
 Casing 7 "set @ 2025 ' Tubing 1 1/2 "set @ 2034 '  
 Pay Zone: 2025 ' to 2060 ' Total Depth: 2060 '  
 Stimulation Method: Sand-Water frac.  
 Choke Size: 3/4 " Choke Constant = C = 14.1605  
 Flow Through: Casing x Tubing \_\_\_\_\_  
 Shut In Pressure Casing: 627 psig / 12 = 639 psia (Shut in 9 days)  
 Shut In Pressure Tubing: 627 psig / 12 = 639 psia  
 Flowing Pressure: P : 127 psig / 12 = 139 psia  
 Working Pressure: P<sub>w</sub> : 128 psig / 12 = 140  
 Temperature: T : 61 °F / 460 = 521 °Absolute  
 F<sub>pv</sub> (from tables) : 1.012 Gravity .65 Est. n .85

$$\text{Choke Volume} = Q = \frac{C \times P_T \times F_T \times F_G \times F_{PV}}{\sqrt{P_c^2 - P_w^2}}$$

$$Q = 14.1605 \times 139 \times .9990 \times .9608 \times 1.012 = 1912 \text{ MCF/D}$$

$$\text{Open Flow} = Aof = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n$$

$$Aof = 1912 \left[ \frac{408.321}{388.721} \right]^{.85} = 1912 (1.0504)^{.85} = 1912 \times 1.0427$$

$$Aof = 1994 \text{ MCF/D}$$

Tested by: D. W. Mitchell  
 Witnessed by: \_\_\_\_\_



L. D. Galloway

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