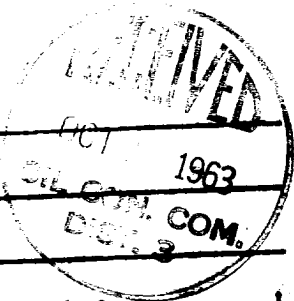


OPEN FLOW TEST DATA



Date: 8/5/63  
 Lease: MAMPA K-1  
 County: RA State: NM  
 Pool: UNDERSHATER  
 Operator: SMAR - ALAB  
 Location: NW 4 - 23 - 2  
 Formation: P.C.  
 Casing: 4 1/2 " Set @ 3185 ' Tubing: 2 3/8 " Set @ 3084 '  
 Pay Zone: 3066 ' To: 3084 ' Total Depth: 3193 '  
 Choke Size: 3/4 IHC " Choke Constant = C = 12.365

Stimulation Method: \_\_\_\_\_ Flow Through: Casing \_\_\_\_\_ Tubing X

Shut-in Pressure Casing: 964 psig / 12 = 976 psia (Shut-in 8 days)  
 Shut-in Pressure Tubing: 964 psig / 12 = 976 psia  
 Flowing Pressure: P : 272 psig / 12 = 284 psia  
 Working Pressure: P<sub>w</sub> : 511 psig / 12 = 523 psia  
 Temperature: T : 52 °F / 460 = 512 °Absolute  
 F<sub>pv</sub> (from tables) : 1.026 Gravity Est. .619 n .85

Choke Volume = Q = C x P<sub>t</sub><sup>2</sup> x F<sub>t</sub><sup>2</sup> x F<sub>g</sub><sup>2</sup> x P<sub>pv</sub><sup>2</sup>  

$$\frac{12.365 \times 284 \times 1.0078 \times .9918 \times 1.026}{Q} = \underline{\underline{3691}} \text{ MCF/D}$$

Open Flow - Aof = Q

Aof = 
$$\left[ \frac{P_c^2 - P_w^2}{952,576} \right]^{1/n} = 1.4088 \approx 1.3685$$

Aof = 
$$\underline{\underline{4917}} \text{ MCF/D}$$

Tested By: \_\_\_\_\_  
 Witnessed By: \_\_\_\_\_

GEOELECTRIC INC