FORM 23-75 (12-66)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DATE November 25, 1975

Operator: El Paso Natural Gas Company		Lease: Howell E #2-A	
Location: 790/S, 790/E, Sec. 14, T30N, R8W		County: San Juan	State: New Mexico
Formation: Mesa Verde		Pool: Blanco	
Casing: Diameter: 4.500	Set At: Feet: 5558'	Tubing: Diameter: 2.375	Set At: Feet: 5499'
Pay Zone: From: 4762'	To: 5520'	Total Depth: 5558' PBTD 5541'	Shut In: 11-5-75
Stimulation Method: Sandwater Frac		Flow Through Casing	Flow Through Tubing: XX

Choke Size, Inches: Plate 2.750 4" M.R.	Choke Constant: C: 41.10	Tested thru 3/4" variable choke	
Shut-In Pressure, Casing, PSIG: 669	+ 12 = PSIA: 681 / Days Shut-In: 20	Shut-In Pressure, Tubing PSIG: 440	+ 12 = PSIA: 452
Flowing Pressure: P PSIG: W.H. 199 M.R. 74	+ 12 = PSIA: W.H. 211 M.R. 86	Working Pressure: Pw PSIG: 541	+ 12 = PSIA: 553
Temperature: T= 54 °F Ft= 1.006	n = .75	Fpv (From Tables): 1.009	Gravity: .655 Fg = 1.236

CHOKE VOLUME = $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

Q = Calculated from orifice meter readings = 2773 MCF/D

OPEN FLOW = $Aof = Q \left(\frac{P_c^2}{P_c^2 \quad P_w^2} \right)^n$

$Aof = Q \left(\frac{463761}{157952} \right)^n = 2773(2.9361)^{.75} = 2773(2.2430)$

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DIST 3

Aof = 6220 MCF/D

Note: During the test this well produced 8.32 Bbls of 30.8° API gravity oil, and 347.36 MCF of gas was vented to the atmosphere.

TESTED BY R. Hardy & J. Goodwin

WITNESSED BY

Gary W. Brink

Well Test Engineer