

Initial Deliverability
Test

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA
EXCEPT BARKER DOME STORAGE AREA)

72-517

Pool Blanco Formation Mesa Verde County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease San Juan 29-7 Well No. 75
Unit M Sec. 25 Twp. 29 Rge. 7 Pay Zone: From 4940 To 5528
Casing: OD 5-1/2 WT. 15.5 Set At 5579 Tubing: OD 2 WT. 4.7 T. Perf. 4975
Produced Through: Casing _____ Tubing I Gas Gravity: Measured .680 Estimated _____
Date of Flow Test: From 12/22/59 To 12/30/59 Date S.I.P. Measured 10/11/59
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia (b)
Flowing meter pressure (Dwt) _____ psig + 12 = _____ psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (_____) ² x spring constant _____ = _____ psia (d)
Meter error (c) - (d) or (d) - (c) _____ = _____ psi (e)
Friction loss, Flowing column to meter: _____ = _____ psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = _____ psi
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (_____) ² x sp. const. 573 = 573 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 573 psia (h)
P_t = (h) + (f) _____ = 573 psia (i)
Wellhead casing shut-in pressure (Dwt) 1098 psig + 12 = 1110 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1098 psig + 12 = 1110 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1110 psia (l)
Flowing Temp. (Meter Run) 76 °F + 460 _____ = 536 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 555 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{1/2}}{\left(\frac{V(c)}{V(d)} \right)^{1/2}} \times \left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{1/2} = \frac{189}{1} \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/2} \times \frac{1.0007}{1.0005} = 189 \text{ MCF/da.}$$

SUMMARY

P_c = 1110 psia
Q = 189 Mcf/day
P_w = 556 psia
P_d = 555 psia
D = 189 Mcf/day

Company El Paso Natural Gas
By _____ Original Signed
Title _____ Harold L. Kendrick
Witnessed by _____
Company _____

- * This is date of completion test.
- * Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>5554</u>	<u>.216</u>	<u>3158</u>	<u>682</u>	<u>30845</u>	<u>308707</u>	<u>556</u>

D at 500 = 196

OK



