

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)

Pool Blanco Formation Mesa Verde County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed _____
Operator El Paso Natural Gas Lease San Juan 27-5 Unit Well No. 17
Unit M Sec. 29 Twp. 27 Rge. 5 Pay Zone: From 4205 To 5386
Casing: OD 5 1/2 WT. 15.5 Set At 5475 Tubing: OD 2 WT. 4.7 T. Perf. 5391
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .685 Estimated _____
Date of Flow Test: From 3/16/57 To 3/23/57 * Date S.I.P. Measured 10/9/56
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:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing _____ = _____ psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.75) ² x sp. const. 10 _____ = 601 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 601 psia (h)
P_t = (h) + (f) _____ = 601 psia (i)
Wellhead casing shut-in pressure (Dwt) 1006 psig + 12 = 1006 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1068 psig + 12 = 1068 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1068 psia (l)
Flowing Temp. (Meter Run) 69 °F + 460 _____ = 529 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 540 psia (n)

FLOW RATE CALCULATION

Q = _____ X $\left(\frac{V(c)}{V(d)} \right)^{1/2} = \underline{1613}$ MCF/day
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1613 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \underline{1808}$ MCF/day.
 $\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{874,800}{750,924}$ $\frac{1.1649}{1.1812}$

SUMMARY

P_c = 1068 psia
Q = 1613 Mcf/day
P_w = 645 psia
P_d = 540 psia
D = 1808 Mcf/day

Company El Paso Natural Gas
By Original Signed
Title Lewis D. Galloway
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>3693</u>	<u>.236</u>	<u>229.977</u>	<u>54,275</u>	<u>361,201</u>	<u>415,476</u>	<u>645</u>

D @ 500 = 1760

OK

