

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)

7292101

Pool Basin Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____
Operator El Paso Natural Gas Lease McCulley Well No. 4
Unit K Sec. 14 Twp. 28 Rge. 9 Pay Zone: From 6672 To 6856
Casing: OD 5-1/2 WT. 17.00 Set At 6910 Tubing: OD 2-3/8 WT. 4.70 T. Perf. 6779
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .727 Estimated _____
Date of Flow Test: From 6/6/61 To 6/14/61 * Date S.I.P. Measured 9/7/60
Meter Run Size _____ Orifice Size _____ Type Chrt _____ 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 (_____) ² x sp. const. _____ = 483 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) _____ = 483 psia (h)
P_c = (h) + (f) _____ = 483 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ 1881 psig + 12 = 1893 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ 1879 psig + 12 = 1891 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1891 psia (l)
Flowing Temp. (Meter Run) _____ °F + 460 _____ = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 946 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{4.14}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = 4.14$$

DELIVERABILITY CALCULATION

$$D = Q \frac{4.14}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 351 \text{ MCF/day}$$

SUMMARY

P_c = 1891 psia
Q = 4.14 Mcf/day
P_w = 483 psia
P_d = 946 psia
D = 351 Mcf/day

Company El Paso Natural Gas Co.
By _____
Title (Original signed by)
Witnessed by H. L. Kendrick
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 1)	P _t ² + R ²	P _w
4928	.301	15.148	4,560	233,289	237,849	483

D at 500 = 411

