

Initial Deliverability Test

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

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

70027

Pool El Paso Natural Gas Formation El Paso County San Juan

Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Barker Well No. 2

Unit 2 Sec. 20 Twp. 30 Rge. 10 Pay Zone: From 4200 To 5000

Casing: OD 7.000 WT 20.00 Set At 5300 Tubing: OD 2.000 WT 4.70 T. Perf. 40

Produced Through: Casing _____ Tubing X Gas Gravity: Measured .600 Estimated _____

Date of Flow Test: From 3/24/60 To 3/30/60 * Date S.I.P. Measured 4/1/60

Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia

Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia

Flowing meter pressure (Dwt) _____ psig + 12 = _____ psia

Flowing meter pressure (meter reading when Dwt. measurement taken:

Nonnal chart reading _____ psig + 12 = _____ psia

Square root chart reading (_____)² x spring constant _____ = _____ psia

Meter error (c) - (d) or (d) - (c) _____ ± _____ = _____ psi

Friction loss, Flowing column to meter:

(b) - (c) Flow through tubing; (a) - (c) Flow through casing _____ = _____ psi

Seven day average static meter pressure (from meter chart):

Nonnal chart average reading _____ psig + 12 = _____ psia

Square root chart average reading (6.95)² x sp. const. 10 = 480 psia

Corrected seven day avge. meter press. (h) (g) + (e) _____ = 480 psia

P_h = (h) + (f) _____ = 480 psia

Wellhead casing shut-in pressure (Dwt) 800 psig + 12 = 812 psia

Wellhead tubing shut-in pressure (Dwt) 719 psig + 12 = 731 psia

P_c = (j) or (k) whichever well flowed through _____ = 904 psia

Flowing Temp. (Meter Run) _____ °F + 460 _____ = _____ °Abs

P_d = 1/2 P_c = 1/2 (l) _____ = 452 psia

Q = _____ x $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\text{_____}}{\text{_____}} = \text{_____} \right) = \text{_____} \text{ MCF/day}$

DELIVERABILITY CALCULATION

D = Q 700 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{612,912}{577,877} = 1.0604$ = 584 MCF/day

SUMMARY

P_c = 904 psia
Q = 700 Mcf/day
P_w = 480 psia
P_d = 452 psia
D = 584 Mcf/day

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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})	(FcQ) ²	(FcQ) ² (1-e ^{-S}) R ²	P _i ² (Column 1)	P _i ² + R ²
<u>700</u>	<u>.229</u>	<u>27.245</u>	<u>6070</u>	<u>831.200</u>	<u>837.270</u>

Estimated tubing 30.00

D at 900 = 578

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