

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 San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____
Operator Union Texas Pet Lease Johnston-Federal Well No. 9
Unit H Sec. 35 Twp. 34N Rge. 9W Pay Zone: From 4450 To 5153
Casing: OD 4 1/2 WT. 9.5 Set At 5242 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 4665
Produced Through: Casing _____ Tubing X Gas Gravity: Measured 678 Estimated _____
Date of Flow Test: From Dec. 19 To Dec. 27 Date S.I.P. Measured Nov. 26, 1963
Meter Run Size 4 Orifice Size 1.50 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 (7.45)² x spring constant 1000 = 555 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 (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.45)² x sp. const. _____ = 555 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 555 psia (h)
P_t = (h) + (f) _____ = 555 psia (i)
Wellhead casing shut-in pressure (Dwt) 770 psig + 12 = 782 psia (j)
Wellhead tubing shut-in pressure (Dwt) 750 psig + 12 = 762 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 782 psia (l)
Flowing Temp. (Meter Run) _____ °F + 460 _____ = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 391 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{853}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.000}{1.000} \right) = 853 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{853}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}} = \frac{438.643}{290.314}^{1/1.4091} = 1202 \text{ MCF/da.}$$

SUMMARY

P_c = 782 psia
Q = 853 Mcf/day
P_w = 567 psia
P_d = 391 psia
D = 1,202 Mcf/day

Company _____
By _____
Title _____
Witnessed by Thurmond McGlothlin
Company Thurmond McGlothlin

- 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
3163	.205	64.320	13.185	308.825	321.210	567

P_d = 50% P_c

