

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 Basin Dakota Formation Dakota County SJ
Purchasing Pipeline Hl Paso Natural Gas Company Date Test Filed 3/22/61
Operator Southwest Production Company Lease Warren Federal Well No. 1
Unit A Sec. 17 Twp. 27 Rge. 12 Pay Zone: From 5882 To 5966
Casing: OD 4 1/2" WT. 11.60 Set At 6030 Tubing: OD 2 3/8" WT. 4.70 T. Perf. 5978
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .656 Estimated _____
Date of Flow Test: From 3/6/61 To 3/14/61 * Date S.I.P. Measured 3/21/61
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 499 psig + 12 = 511 psia (b)
Flowing meter pressure (Dwt) 478 psig + 12 = 490 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.0)² x spring constant 1.000 = 490 psia (d)
Meter error (c) - (d) or (d) - (c) _____ = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 21 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.00)² x sp. const. 1.000 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 511 psia (h)
P_t = (h) + (f) = 532 psia (i)
Wellhead casing shut-in pressure (Dwt) 1468 psig + 12 = 1475 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1460 psig + 12 = 1472 psia (k)
P_c = (j) or (k) whichever well flowed through = 1472 psia (l)
Flowing Temp. (Meter Run) 62 °F + 460 = 522 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 736 psia (n)

Q = 80 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = 1.0 = 1.00} \right)^* = \underline{80}$ MCF/da
(integrated) $\sqrt{(d)} = 1.0$

DELIVERABILITY CALCULATION

D = Q 80 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \underline{71}$ MCF/da.
 $\frac{1,625,088}{1,904,261} = .8533$
 $\frac{1,904,261}{1,905,523} = .8878$
 $(.8528)^{75} = .5574$

SUMMARY

P_c = 1472 psia Company Southwest Production Company
Q = 80 Mcf/day By George L. Hoffman, Jr.
P_w = 512 psia Title Production Foreman
P_d = 736 psia Witnessed by _____
D = 71 Mcf/day 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
3922	.248	5.656	1.492,000	261,121	262,323	511

566 .140

OK



