

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 Tapacito Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corp. Date Test Filed 9-6-57
Operator Northwest Production Corp. Lease "N" Well No. 5-6
Unit 1 Sec. 6 Twp. 26N Rge. 4W Pay Zone: From 3852 To 3880
Casing: OD 7-5/8 WT. 26.4 Set At 4096 Tubing: OD 1 1/2 WT. 2.3 T. Perf. 3852
Produced Through: Casing X Tubing _____ Gas Gravity: Measured .680 Estimated _____
Date of Flow Test: From 8-1-57 To 8-9-57 * Date S.I.P. Measured 6-11-57
Meter Run Size 2" Orifice Size 1.375 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 621 psig + 12 = 633 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = _____ psia (h)
P_t = (h) + (f) _____ = 633 psia (i)
Wellhead casing shut-in pressure (Dwt) 1074 psig + 12 = 1086 psia (j)
Wellhead tubing shut-in pressure (Dwt) ----- psig + 12 = ----- psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1086 psia (l)
Flowing Temp. (Meter Run) 80 °F + 460 _____ = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 543 psia (n)

Q = 2,427 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\sqrt{(d)}}{\sqrt{(d)}} \right)^* = \text{_____ MCF/da}$
(integrated)

DELIVERABILITY CALCULATION

D = Q 2,427 $\left[\frac{(P_c^2 - P_d^2) = \text{884,547}}{(P_c^2 - P_w^2) = \text{778,338}} \right]^n \frac{1.11486}{\text{_____}} = \text{2,706 MCF/da.}$

SUMMARY

P_c = 1086 psia
Q = 2427 Mcf/day
P_w = 633 psia
P_d = 543 psia
D = 2706 Mcf/day

Company Northwest Production Corp.
By Ray Phillips RAY PHILLIPS
Title Asst. Mgr., Prod. Opr.
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
2619	0.173	2.135	369	400,689	401,058	633.3



"N" 5-6 PC

Annular Flow with Dual Tubing Strings

7-5/8" 26.4# csg - ID 6.969
 2-3/8" 4.7# tbg - OD 2.375
 1-1/4" 2.3# tbg - OD 1.660

Combined tbg area:
 2-3/8" = 4.4301"
 1-1/4" = 2.1642"
6.5943" = 2.9" OD

d1 = 6.969
 d2 = 2.90
 Pb = 15.025
 T = 573
 Z = 0.90

Log 4.069 = .6095
1.582
 .9642

AL .9642 = 9.208

$$F_c = \left(\frac{0.10337}{((6.969 \div 2.900) (6.969 - 2.900))} \right) \frac{1.582}{(14.65)} \frac{(15.025)}{(573)} (0.90)$$

$$F_c = \left(\frac{0.10337}{((9.869) (4.069))} \right) \frac{1.582}{(1.0256)} (515.7)$$

$$F_c = \left(\frac{0.10337}{((9.869) (9.208))} \right) (528.9019)$$

$$F_c = \left(\frac{0.10337}{(90.87375)} \right) (528.9019)$$

$$F_c = (.0011375) (528.9019)$$

$$F_c = .602$$