

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 Hilanco Formation Mesa Verde County Rio Arriba
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed 1-18-59
Operator PACIFIC NORTHWEST PIPELINE Lease San Juan 30-5 Well No. 25-17
Unit M Sec. 17 Twp. 30N Rge. 5W Pay Zone: From 5296' To 5767'
Casing: OD 5 1/2" WT. Set At 5785' Tubing: OD 1 1/2" WT. 2.44 T. Perf. 5737'
Produced Through: Casing Tubing xxx Gas Gravity: Measured .613 Estimated
Date of Flow Test: From 11-23-58 To 12-7-58 Date S.I.P. Measured 2-23-58
Meter Run Size Orifice Size 1.250 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 psig + 12 = psia (g)
Square root chart average reading (7.10) ² x sp. const. 10.00 = 504 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = psia (h)
P_t = (h) + (f) = 504 psia (i)
Wellhead casing shut-in pressure (Dwt) 1202 psig + 12 = 1214 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1108 psig + 12 = 1120 psia (k)
P_c = (j) or (k) whichever well flowed through = 1214 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 = 900 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 607 psia (n)

Q = 817 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} \right) = \underline{\underline{817}}$ MCF/da
(integrated)

DELIVERABILITY CALCULATION

D = Q 817 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n \frac{(0.9796)^{.75}}{0.9846} = \underline{\underline{804}}$ MCF/da.

SUMMARY

P_c = 1214 psia
Q = 817 Mcf/day
P_w = 588 psia
P_d = 607 psia
D = 804 Mcf/day

Company PACIFIC NORTHWEST PIPELINE
By Original signed by G. H. Peppin
Title District Production Engineer
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 R ²	(1-e ^{-s})	P _t ² (Column i)	P _t ² + R ²	P _w
<u>3517</u>	<u>0.226</u>	<u>404.613</u>	<u>91.443</u>		<u>254.016</u>	<u>345.459</u>	<u>588</u>



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