

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 Elanog Formation Mesa Verde County San Juan
Purchasing Pipeline EL PASO NATURAL GAS Date Test Filed 1-12-59
Operator PACIFIC NORTHWEST PIPELINE Lease San Juan 32-8 Well No. 30-27
Unit M Sec. 27 Twp. 32N Rge. 8W Pay Zone: From 5524' To 6084'
Casing: OD 2 1/2" WT. Set At 6130' Tubing: OD 1 1/2" WT. 2.44 T. Perf. 6075'
Produced Through: Casing Tubing Gas Gravity: Measured .572 Estimated
Date of Flow Test: From 12-7-58 To 12-15-58 Date S.I.P. Measured 9-15-58
Meter Run Size Orifice Size 1.000 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 (7.05)² x sp. const. 10.00 = 497 psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) = 497 psia (h)
P_t = (h) + (f) = 497 psia (i)
Wellhead casing shut-in pressure (Dwt) 1104 psig + 12 = 1116 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1104 psig + 12 = 1116 psia (k)
P_c = (j) or (k) whichever well flowed through = 1116 psia (l)
Flowing Temp. (Meter Run) 58 °F + 460 = 518 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 558 psia (n)

Q = 403 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} = \frac{\text{ }}{\text{ }} = \text{ }} \right)^* = \text{403 MCF/da}$
(integrated)

DELIVERABILITY CALCULATION

D = Q 403 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{934,092}{976,494} \right]^n \frac{(0.9566)^{.75}}{0.9672} = \text{390 MCF/da.}$

SUMMARY

P_c = 1116 psia
Q = 403 Mcf/day
P_w = 518 psia
P_d = 558 psia
D = 390 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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
3475	0.223	98.446	21.953	247.009	268.962	518



