

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 Elanco Formation Mass Verde County Rio Arriba
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed 1-12-59
Operator PACIFIC NORTHWEST PIPELINE Lease San Juan 29-5 Well No. 40-28
Unit 6 Sec. 28 Twp. 23N Rge. 5W Pay Zone: From 5966' To 5396'
Casing: OD 5 1/2" WT. Set At 6008' Tubing: OD 1 1/2" WT. 2.44 T. Perf. 5972'
Produced Through: Casing Tubing 23N Gas Gravity: Measured .675 Estimated
Date of Flow Test: From 12-7-58 To 12-15-58 * Date S.I.P. Measured 9-5-58
Meter Run Size Orifice Size 1.300 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 (7.80) ² x sp. const. 10.00 = 608 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 608 psia (h)
P_t = (h) + (f) = 608 psia (i)
Wellhead casing shut-in pressure (Dwt) 927 psig + 12 = 969 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1105 psig + 12 = 1117 psia (k)
P_c = (j) or (k) whichever well flowed through = 1117 psia (l)
Flowing Temp. (Meter Run) 67 °F + 460 = 507 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 558.5 psia (n)

Q = 692 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \text{ } = \text{ } } \right)^{.75}$ = 692 MCF/da
(Integrated) $\sqrt{(d)} = \text{ } = \text{ }$

DELIVERABILITY CALCULATION

D = Q 692 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \frac{935,767}{804,589} \cdot \frac{(1.163)^{.75}}{1.180} = 775$ MCF/da.

SUMMARY

P_c = 1117 psia
Q = 692 Mcf/day
P_w = 666 psia
P_d = 558.5 psia
D = 775 Mcf/day

Company PACIFIC NORTHWEST PIPELINE
By Original signed by G. H. Popple
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	$\frac{(F_c Q)^2 (1-e^{-S})}{R^2}$	P _t ² (Column i)	P _t ² + R ²	P _w
401.8	0.253	290.259	73.436	369.664	443.100	666



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