

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 Astec Pictured Cliffs Formation Pictured Cliffs County San Juan
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed _____
Operator PACIFIC NORTHWEST PIPELINE Lease Astec 30-10 Well No. 1-32
Unit H Sec. 32 Twp. 30N Rge. 13W Pay Zone: From 2476' To 2522'
Casing: OD 5 1/2" WT. 14.04 Set At 2640' Tubing: OD 1 1/4" WT. 2.34 T. Perf. 2517'
Produced Through: Casing _____ Tubing 2 2 Gas Gravity: Measured 0.669 Estimated _____
Date of Flow Test: From 5-30-58 To 6-7-58 Date S.I.P. Measured 3-25-58
Meter Run Size 4" Orifice Size 1.750 Type Chart Sq. Rt. Type Taps Flange

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 (7.15) ² x sp. const. 5.00 = _____ psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) _____ = _____ psia (h)
P_t = (h) + (f) _____ = _____ psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (k)
P_c = (j) or (k) whichever well flowed through _____ = _____ psia (l)
Flowing Temp. (Meter Run) _____ °F + 460 _____ = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = _____ psia (n)

FLOW RATE CALCULATION

$$Q = \frac{959}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\quad}{\quad} = \quad \right) = 959 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{959}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{137,388}{53,538} \right]^n \frac{(2.5661)^{.85}}{2.2276}} = 2,136 \text{ MCF/da.}$$

SUMMARY

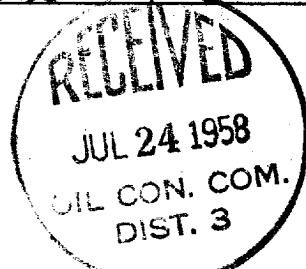
P_c = 488 psia
Q = 959 Mcf/day
P_w = 360 psia
P_d = 214 psia
D = 2,136 Mcf/day

Company PACIFIC NORTHWEST PIPELINE CORP.
By Original signed by G. H. Lepp
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
1684	0.115	599.479	64.110	65.536	129.646	360



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