

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 South Blanco-Pictured Cliffs Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corporation Date Test Filed 4-2-59
Operator PAN AMERICAN PETROLEUM CORP. Lease Alvarilla Contract 155 Well No. 11
Unit K Sec. 31 Twp. 24N Rge. 24 Pay Zone: From 2803 To 2896
Casing: OD 4-1/2 WT. 9.5 Set At 2847 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 2802
Produced Through: Casing Tubing X Gas Gravity: Measured 0.600 Estimated
Date of Flow Test: From 2-19-59 To 2-27-59 * Date S.I.P. Measured 12-17-58
Meter Run Size 4" Orifice Size 1.500 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 ()² x sp. const. 965 = 577 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 577 psia (h)
 = 577 psia (i)
P_t = (h) + (f) = 903 psia (j)
Wellhead casing shut-in pressure (Dwt) 891 psig + 12 = 903 psia (j)
Wellhead tubing shut-in pressure (Dwt) 891 psig + 12 = 903 psia (k)
P_c = (j) or (k) whichever well flowed through = 903 psia (l)
Flowing Temp. (Meter Run) 58 °F + 460 = 518 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 452 psia (n)

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

DELIVERABILITY CALCULATION

D = Q 71.3 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \text{MCF/da.}$
611,105 1.237 919

SUMMARY

P_c = 903 psia
Q = 71.3 Mcf/day
P_w = 503 psia
P_d = 452 psia
D = 919 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION
By R. M. Bauer, Jr.
Title Field 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
1989	0.135	48,084	6,509	332,929	339,438	503

*Furnished by pipeline company

INITIAL DELIVERABILITY TEST

