

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 Elance Mesaverde Formation Mesaverde County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed July 25, 1960
Operator Pan American Petroleum Corp. Lease Gumbling "B" Well No. 1
Unit 8 Sec. 20 Twp. 29N Rge. 9W Pay Zone: From 3790 To 4630
Casing: OD 7 WT. 23 Set At 3784 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 4610
Produced Through: Casing 1 Tubing _____ Gas Gravity: Measured 0.665 Estimated _____
Date of Flow Test: From 6-21-60 To 6-23-60 * Date S.I.P. Measured 7-6-60
Meter Run Size 4" Orifice Size 1.000 Type Chart Sq. R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 495 psig + 12 = 507 psia (a)
Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia (b)
Flowing meter pressure (Dwt) 495 psig + 12 = 507 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (5.01)² x spring constant 15 = 906 psia (d)
Meter error (c) - (d) or (d) - (c) ± = + 1 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (5.05)² x sp. const. 15 = 913 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 914 psia (h)
P_t = (h) + (f) = 914 psia (i)
Wellhead casing shut-in pressure (Dwt) 814 psig + 12 = 826 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (k)
P_c = (j) or (k) whichever well flowed through = 826 psia (l)
Flowing Temp. (Meter Run) 76 °F + 460 = 536 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 413 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{397}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{22.9144}{22.4944} = 1.0009 \right) = 397 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{397}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 397 \frac{1.1635}{\left[\frac{911,707}{418,080} \right]^n} = 462 \text{ MCF/day}$$

SUMMARY

P_c = 826 psia
Q = 397 Mcf/day
P_w = 914 psia
P_d = 413 psia
D = 462 Mcf/day
Company Pan American Petroleum Corporation
By R. H. Bauer, Jr.
Title Area 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
Friction Loss Negligible						

