

Initial Deliverability
TestNEW 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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 12-24-64

Operator PAN AMERICAN PETROLEUM CORP. Lease H. B. McGrady "B" Well No. 1
Unit P Sec. 24 Twp. 27N Rge. 12W Pay Zone: From 6223 To 6244
Casing: OD 4-1/2 WT. 10.5 Set At 6322 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 6244
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .698 Estimated _____
Date of Flow Test: From 11-18-64 To 11-26-64 * Date S.I.P. Measured 6-20-64
Meter Run Size 4" Orifice Size 1.300 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: _____ = _____ psi (f)
(b) - (c) Flow through tubing; (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (6.93) ² x sp. const. 10 = _____ 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) 1930 psig + 12 = 1942 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1912 psig + 12 = 1924 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) _____ = 971 psia (n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q \frac{1464}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{2,828,523}{3,486,541} \right]^n} \frac{0.8548}{\text{_____}} = \text{1251 MCF/da.}$$

SUMMARY

P_c = 1942 psia
Q = 1464 Mcf/day
P_w = 534 psia
P_d = 971 psia
D = 1251 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION
By F. L. Nabors
Title District Engineer
Witnessed by By:
Company _____ ORIGINAL SIGNED BY DEC 30 1964
F. W. Foell

- * 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
<u>4360</u>	<u>0.272</u>	<u>189.462</u>	<u>51.534</u>	<u>233.289</u>	<u>234.823</u>	<u>534</u>