

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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed _____
Operator Pan American Petroleum Corp. Lease Callegos Canyon Unit Well No. 145
Unit A Sec. 26 Twp. 29N Rge. 12W Pay Zone: From 6042 To 6080
Casing: OD 4 1/2 WT. 10.5 Set At 6190 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 6030
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .668 Estimated _____
Date of Flow Test: From May 11, 1964 To May 19, 1964 Date S.I.P. Measured November 1, 1963
Meter Run Size 1" Orifice Size 1.700 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 (6.85) ² x sp. const. 10 = 469 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 469 psia (h)
P_t = (h) + (f) = 469 psia (i)
Wellhead casing shut-in pressure (Dwt) 2094 psig + 12 = 2106 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2086 psig + 12 = 2098 psia (k)
P_c = (j) or (k) whichever well flowed through = 2106 psia (l)
Flowing Temp. (Meter Run) _____ °F + 460 = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1053 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{1/n}}{\left(\frac{V(c)}{V(d)} \right)^{1/n}} \times \text{_____} = \text{_____ MCF/da}$$

(integrated)

DELIVERABILITY CALCULATION

$$D = Q \frac{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n}} = \text{_____ MCF/da.}$$

1879 3,326,427 .8492 1596

SUMMARY

P_c = 2106 psia
Q = 1879 Mcf/day
P_w = 547 psia
P_d = 1053 psia
D = 1596 Mcf/day

Company Pan American Petroleum Corporation
By Fred L. Nabors
Title District Engineer
Witnessed by: _____
Company Fred 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>4028</u>	<u>.254</u>	<u>312.100</u>	<u>79.273</u>	<u>219.961</u>	<u>299,234</u>	<u>547</u>