

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)

Initial Deliverability
Test

Pool Unsubstantiated Pictured Cliffs Formation Pictured Cliffs County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 4-13-59

Operator PAN AMERICAN PETROLEUM CORP. Lease R. H. Elliott # Well No. 1
Unit 1 Sec. 9 Twp. 30N Rge. 9W Pay Zone: From 2856 To 2866
Casing: OD 4-2/2 WT. 9.5 Set At 2921 Tubing: OD 1.66 WT. 2.3 T. Perf. 2872
Produced Through: Casing I Tubing _____ Gas Gravity: Measured 0.641 Estimated _____
Date of Flow Test: From 3-22-59 To 3-29-59 * Date S.I.P. Measured 12-27-58
Meter Run Size 4" Orifice Size 1.250 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 (7.150) ² x sp. const. 5 _____ = _____ 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) 1010 psig + 12 = 1022 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1010 psig + 12 = 1022 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = _____ psia (l)
Flowing Temp. (Meter Run) 530 F + 460 _____ = 513 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 511 psia (n)

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

DELIVERABILITY CALCULATION

D = Q 2350 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right] = \frac{783,363}{978,946} \times 0.627 = 194 \text{ MCF/da.}$

SUMMARY

P_c = 1022 psia
Q = 235 Mcf/day
P_w = 511 psia
P_d = 511 psia
D = 194 Mcf/day

Company PAN AMERICAN PETROLEUM CORPORATION
By R. H. Bauer, Jr. RHBauer
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
Friction Loss Negligible						

*Furnished by pipeline company

INITIAL DELIVERABILITY TEST



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

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