

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 Rio Arriba
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed January 10, 1962
Operator Pan American Petroleum Corp. Lease Jicarilla Contract 146 Well No. 11
Unit K Sec. 4 Twp. 23N Rge. 9W Pay Zone: From 7100 To 7125
Casing: OD 4-1/2 WT. 9.5 4 1/16 Set At 7463 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 7100
Produced Through: Casing _____ Tubing K Gas Gravity: Measured .699 Estimated _____
Date of Flow Test: From 10-12-61 To 10-20-61 * Date S.I.P. Measured 6-9-61 *
Meter Run Size 4" Orifice Size .750 Type Chart Sg. 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 (7.10) ² x sp. const. 10 _____ = 504 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 504 psia (h)
P_t = (h) + (f) _____ = 504 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ 2321* psig + 12 = 2333 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ 2321* psig + 12 = 2333 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 2333 psia (l)
Flowing Temp. (Meter Run) _____ 84 °F + 460 _____ = 548 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 1167 psia (n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q \text{ } \underline{185} \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{4,061,000}{1,167,957} \right]^n \underline{.8352} = \underline{155} \text{ MCF/da.}$$

SUMMARY

P_c = 2333 psia
Q = 185 Mcf/day
P_w = 504 psia
P_d = 1167 psia
D = 155 Mcf/day

Company Pan American Petroleum Corporation
By E. M. Bumer, Jr.
Title Senior Petroleum 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 l)	DIST. 3 P _t ² + R ²	P _w
<u>4963</u>	<u>.303</u>	<u>3,024</u>	<u>0,916</u>	<u>254,016</u>	<u>254,932</u>	<u>7199</u>

*Estimated pressure based on initial shut-in pressure of offsetting Jicarilla Contract 147 No. 1, located in Unit A, Section 8, T-25-N, R-5-W.

