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 __Blanco-Pictured Cliffs__ Formation __Pictured Cliffs__ County __San Juan__

Purchasing Pipeline __El Paso Natural Gas Company__ Date Test Filed __March 2, 1960__

Operator __Pan American Petroleum Corp.__ Lease __Hawk Gas Unit__ Well No. __1__

Unit __8__ Sec. __6__ Twp. _____ Rge. __9W__ Pay Zone: From _____ To _____

Casing: OD __7__ WT. __20__ Set At __3006__ Tubing: OD __1-1/2__ WT. __2.4__ T. Perf. _____

Produced Through: Casing __X__ Tubing _____ Gas Gravity: Measured __0.600__ Estimated _____

Date of Flow Test: From __2-1-60__ To __2-8-60__ * Date S.I.P. Measured __11-3-59__

Meter Run Size __4"__ Orifice Size __1.500__ Type Chart __Am. Mtr.__ 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 (__7.44__) ^{2} x sp. const. __8__ = _____ 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) __867__ psig + 12 = _____ psia (j)

Wellhead tubing shut-in pressure (Dwt) __867__ psig + 12 = _____ psia (k)

P_c = (j) or (k) whichever well flowed through = _____ psia (l)

Flowing Temp. (Meter Run) __60__ °F + 460 = _____ °Abs (m)

P_d = ½ P_c = ½ (l) = _____ psia (n)

FLOW RATE CALCULATION

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

(integrated)

DELIVERABILITY CALCULATION

$$D = Q \underline{\quad 408 \quad} \left[\frac{P_c^2 - P_d^2 =\ 571,600}{P_c^2 - P_w^2 =\ 644,700} \right]^n \underline{\quad .519 \quad} = \underline{\quad 435 \quad} \text{MCF/da.}$$

SUMMARY

P_c = __870__ psia

Q = __408__ Mcf/day

P_w = __570__ psia

P_d = __440__ psia

D = __435__ Mcf/day

Company __Pan American Petroleum Corporation__

By __R. L. Bauer, Jr.__ _KMBauer, Jr._

Title __Area Engineer__

Witnessed by _____

Company _____

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)2$	$\dfrac{(F_cQ)^2\ (1-e^{-S})}{R^2}$	$\dfrac{Pt^2}{\text{(Column i)}}$	$P_t^2 + R^2$	P_w
Friction Loss Negligible						

__Furnished by pipeline company.__