

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 3-18-64
Operator PAE AMERICAN PETROLEUM CORP. Lease Colleges Canyon Unit Well No. 90
Unit 11 Sec. 35 Twp. 30N Rge. 13W Pay Zone: From 6200 To 6304
Casing: OD 4.5 WT. 9.3 Set At 6440 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 6200
Produced Through: Casing Tubing X Gas Gravity: Measured .650 Estimated
Date of Flow Test: From 2-7-64 To 2-15-64 * Date S.I.P. Measured 2-15-64
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 (2.15)² x sp. const. 10 = 511 psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) = 511 psia (h)
P_t = (h) + (f) = 511 psia (i)
Wellhead casing shut-in pressure (Dwt) 3073 psig + 12 = 3085 psia (j)
Wellhead tubing shut-in pressure (Dwt) 3073 psig + 12 = 3085 psia (k)
P_c = (j) or (k) whichever well flowed through = 3085 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1543 psia (n)

Q = X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{V(c)}{V(d)}} \right)^* = \text{MCF/day}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 400 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \text{MCF/day}$
3,250,374 .8457 375
4,075,434

SUMMARY

P_c = 3085 psia
Q = 400 Mcf/day
P_w = 511 psia
P_d = 1543 psia
D = 375 Mcf/day

Company PAE AMERICAN PETROLEUM CORP.
By E. L. Nelson
Title District Engineer
Witnessed by [Signature]
Company E. L. Nelson

* 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 1)	P _t ² + R ²	P _w
4191	.261	40,075	10,640	261,121	271,900	511



