

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 Pine Lake Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Kl Puro Natural Gas Co. Date Test Filed 8/16/60

Operator Socomey Mobil Oil Co., Inc. Lease Jicarilla "G" Well No. 1
Unit A Sec. 31 Twp. 27N Rge. 3W Pay Zone: From 3838' To 3925'
Casing: OD 7-5/8" WT. 21# Set At 4147 Tubing: OD 2-3/8" WT. 4.7# T. Perf. 3818'
Produced Through: Casing Tubing X Gas Gravity: Measured 0.674 Estimated
Date of Flow Test: From 7/22/60 To 7/30/60 * Date S.I.P. Measured 8/6/60
Meter Run Size 2.068 Orifice Size 1.000 Type Chart L-10-8 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) 517 psig + 12 = 529 psia (b)
Flowing meter pressure (Dwt) 517 psig + 12 = 529 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading (7.25)² x spring constant 10 = 526 psia (d)
Meter error (c) - (d) or (d) - (c) ± = +3 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 (7.05)² x sp. const. 10 = 497 psia (g)
Corrected seven day avg. meter press. (p_f) (g) + (e) = 500 psia (h)
P_t = (h) + (f) = 500 psia (i)
Wellhead casing shut-in pressure (Dwt) psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) 764 psig + 12 = 776 psia (k)
P_c = (j) or (k) whichever well flowed through = 776 psia (l)
Flowing Temp. (Meter Run) 75 °F + 460 = 535 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 388 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{511}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = 1.006}{\sqrt{(d)} = 1.003} \right)^2 = 513 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q = 513 \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.85} = \frac{451,632}{348,198}^{0.85} = 1.297 = 1.2473 = 640 \text{ MCF/da.}$$

SUMMARY

P_c = 776 psia
Q = 513 Mcf/day
P_w = 504 psia
P_d = 388 psia
D = 640 Mcf/day
Company Socomey Mobil Oil Company, Inc.
By H. J. Dvoracek
Title Prod. Engr.
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
2573	0.171	23.261	3.978	250.000	253.978	504

