

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 Marathon Mesquite Formation Marathon County El Paso
Purchasing Pipeline Pacific Northwest Pipeline Date Test Filed _____
Operator Nagavalia Petroleum Co. Lease Sierrita #2 Well No. 4 N.Y.
Unit 1 Sec. 25 Twp. 27E Rge. 3E Pay Zone: From 5725' To 6421'
Casing: OD 9 1/8" WT. 11.4 Set At 6360 Tubing: OD 2 1/8" WT. 4.75 T. Perf. 5700'
Produced Through: Casing - Tubing X Gas Gravity: Measured 0.700 Estimated -
Date of Flow Test: From 1/12/58 To 1/29/58 * Date S.I.P. Measured 10/10/57
Meter Run Size 1.085 Orifice Size 1.500" Type Chart Sp. Pt. Type Taps Range

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: _____ = _____ psi (f)
(b) - (c) Flow through tubing; (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.82) ² x sp. const. 10 = 61 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 61 psia (h)
P_t = (h) + (f) = 62 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1673 psig + 12 = 1685 psia (k)
P_c = (j) or (k) whichever well flowed through = 1685 psia (l)
Flowing Temp. (Meter Run) 78 °F + 460 = 538 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 842.5 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1274}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} - 1}{\sqrt{(d)} - 1} \right) = \frac{11000}{1} = 1274 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1274}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75}} = 1154 \text{ MCF/day}$$

SUMMARY

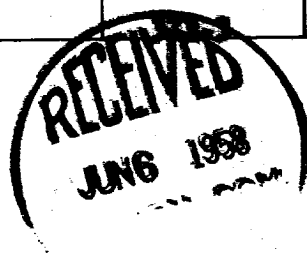
P_c = 1685 psia
Q = 1274 Mcf/day
P_w = 640 psia
P_d = 842.5 psia
D = 1154 Mcf/day

Company NAGAVALIA PETROLEUM COMPANY
By William A. Morgan
Title Jr. Gas 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
<u>377E</u>	<u>0.052</u>	<u>113.5</u>	<u>16.2</u>	<u>1685</u>	<u>1685</u>	<u>640</u>



X *OK*