

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 Elmore Formation Mesaverde County San Juan
Purchasing Pipeline Pacific Northwest Date Test Filed 3-7-58
Operator Magnolia Petroleum Co. Lease Jicarilla "B" Well No. 3 M.V.12
Unit N Sec. 20 Twp. 26N Rge. 1W Pay Zone: From 5473' To 6065'
Casing: OD 5 1/2" WT. 114 Set At 6,130' Tubing: OD 2 3/8" WT. 4.7# T. Perf. 5,440'
Produced Through: Casing - Tubing 2 Gas Gravity: Measured 0.668 Estimated -
Date of Flow Test: From 1-31-58 To 2-6-58 * Date S.I.P. Measured 9-26-57
Meter Run Size 4.026 Orifice Size 1.000" Type Chart 1-30 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 (7.62) ² x sp. const. 10 = 580 psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) = 580 psia (h)
P_t = (h) + (f) = 580 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1132 psig + 12 = 1144 psia (k)
P_c = (j) or (k) whichever well flowed through = 1144 psia (l)
Flowing Temp. (Meter Run) 62 °F + 460 = 522 ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 572 psia (n)

FLOW RATE CALCULATION

Q = 977 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{-}{-} = \frac{1000}{-} \right)^* = \underline{977} MCF/da
(integrated)$

DELIVERABILITY CALCULATION

D = Q 977 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{981.5}{952.6}^{.75} = \frac{(1.030)^{.75}}{1.0224} = \underline{999} MCF/da.$

SUMMARY

P_c = 1144 psia
Q = 977 Mcf/day
P_w = 594-597 psia
P_d = 572 psia
D = 999 Mcf/day

Company MAGNOLIA PETROLEUM COMPANY
By William A. Morgan
Title Dr. 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>3640</u>	<u>0.233</u>	<u>84.4</u>	<u>19.7</u>	<u>336.4</u>	<u>336.4</u>	<u>597</u>

OK

