

Initial Deliverability
Test

Form C-122-A
Revised April 26, 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 Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline Pacific Northwest Date Test Filed 3-7-58
Operator Magnolia Petroleum Company Lease Alcorilla #2 Well No. 3 M.V.LT
Unit 1 Sec. 36 Twp. 27N Rge. 3W Pay Zone: From 5572 To 612
Casing: OD 5 1/2 WT. 114 Set At 6020 Tubing: OD 2 1/8 WT. 4.7 T. Perf. 5,580
Produced Through: Casing 5 1/2 Tubing 2 Gas Gravity: Measured .682 Estimated
Date of Flow Test: From 1-16-58 To 1-23-58 * Date S.I.P. Measured 1-21-58
Meter Run Size 2.000 Orifice Size 1.00 Type Chart L-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 (4.53) ² x sp. const. 10 = 727 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 727 psia (h)
P_t = (h) + (f) = 727 psia (i)
Wellhead casing shut-in pressure (Dwt) psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) 1690 psig + 12 = 1702 psia (k)
P_c = (j) or (k) whichever well flowed through = 1702 psia (l)
Flowing Temp. (Meter Run) 67 °F + 460 = 507 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 851 psia (n)

FLOW RATE CALCULATION

Q = 1042 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^2 = \frac{1.000}{-} = \frac{1042}{-} \text{ MCF/da}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1042 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{.75} \frac{(.926)^{.75}}{.9444} = \frac{998}{-} \text{ MCF/da.}$

SUMMARY

P_c = 1702 psia
Q = 1042 Mcf/day
P_w = 723 psia
P_d = 851 psia
D = 998 Mcf/day

Company MAGNOLIA PETROLEUM COMPANY
By James A. Logan, Jr.
Title Gas Engineer
Witnessed by
Company

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ⁻⁸)	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>3006</u>	<u>.542</u>	<u>96.0</u>	<u>23.2</u>	<u>500.5</u>	<u>523.7</u>	<u>723</u>



OK