

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 Undesignated Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipe Line Corporation Date Test Filed March 23, 1959
Operator Magnolia Petroleum Company Lease Jicarilla "W" Well No. 5 UT-FC
Unit M Sec. 23 Twp. 27N Rge. 3W Pay Zone: From 3888' To 3915'
Casing: OD 7 5/8" WT. 25.40# Set At 4240' Tubing: OD 2 3/8" WT. 4.7# T. Perf. 3891'
Produced Through: Casing - Tubing X Gas Gravity: Measured 0.675 Estimated -
Date of Flow Test: From 1/30/59 To 2/7/59 * Date S.I.P. Measured 10/7/58
Meter Run Size 4.026" Orifice Size 1.000" Type Chart Sqr. 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 537 _____ psig + 12 = 549 psia (g)
Square root chart average reading (7.11) ² x sp. const. 10 _____ = 549 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 549 psia (h)
P_t = (h) + (f) _____ = 549 psia (i)
Wellhead casing shut-in pressure (Dwt) 991 _____ psig + 12 = 1003 psia (j)
Wellhead tubing shut-in pressure (Dwt) 998 _____ psig + 12 = 1010 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1010 psia (l)
Flowing Temp. (Meter Run) 61 °F + 460 _____ = 521 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 505 psia (n)

Q = 205 (integrated) X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)} \cdot 1 = 1 = 1}{\sqrt{(d)} \cdot 1 = 1}} \right)^* = \underline{205} \text{ MCF/da}$

DELIVERABILITY CALCULATION
D = Q 205 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{765,075}{718,054} \right]^n \frac{0.85}{1.0507} = \underline{215} \text{ MCF/da.}$

SUMMARY
P_c = 1010 psia
Q = 205 Mcf/day
P_w = 550 psia
P_d = 505 psia
D = 215 Mcf/day
Company Magnolia 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
3626	0.174	3.71	0.645	301.401	302.046	550