

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 Date Test Filed 1-22-59

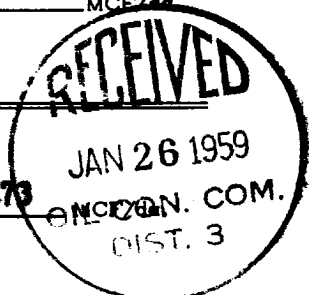
Operator Magnolia Petroleum Co. Lease Jicarilla "G" Well No. 5 P.G. U.T.
Unit M Sec. 25 Twp. 27N Rge. 3W Pay Zone: From 3979' To 4068'
Casing: OD 7-5/8" WT. 26.40# Set At 4300' Tubing: OD 2-3/8" WT. 4.7# T. Perf. 4069'
Produced Through: Casing - Tubing X Gas Gravity: Measured 0.650 Estimated -
Date of Flow Test: From 12/7/58 To 12/15/58 * Date S.I.P. Measured 8/2/58
Meter Run Size 4.026" Orifice Size 0.750" 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 _____ psig + 12 = _____ psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = _____ psia (h)
P_t = (h) + (f) _____ = _____ psia (i)
Wellhead casing shut-in pressure (Dwt) 793 psig + 12 = 805 psia (j)
Wellhead tubing shut-in pressure (Dwt) 797 psig + 12 = 809 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = _____ psia (l)
Flowing Temp. (Meter Run) 54 °F + 460 _____ = 514 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 404 psia (n)

Q = 149 (Integrated) X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} - 1} = \frac{\sqrt{I}}{\sqrt{(d)} - 1} = 1 \right) = \underline{149} MCF/day$

D = Q 149 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.85} = \frac{491,265}{413,081}^{0.85} = 1.19 = 1.1593 = \underline{173}$



SUMMARY

P_c = 809 psia
Q = 149 Mcf/day
P_w = 491 psia
P_d = 404 psia
D = 173 Mcf/day

Company Magnolia Petroleum Company
By William A. Morgan Jr. Gas Engineer
Title _____
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 1)	P _t ² + R ²	P _w
<u>2645</u>	<u>0.175</u>	<u>1.96</u>	<u>0.343</u>	<u>241.1</u>	<u>241.4</u>	<u>491</u>

✓ OK