

Initial Deliverability
Test

Form O-125-A
Revised April 20, 1953

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 2-19-59
Operator Magnolia Petroleum Company Lease Jicarilla "H" Well No. 7 UT-PO
Unit M Sec. 1 Twp. 26N Rge. 3W Pay Zone: From 3605' To 3675'
Casing: OD 7-5/8" WT. 25.4# Set At 3950 Tubing: OD 2-3/8" WT. 4.7# T. Perf. 2650
Produced Through: Casing - Tubing x Gas Gravity: Measured 0.666 Estimated -
Date of Flow Test: From 1-7-59 To 1-15-59 * Date S.I.P. Measured 8-12-58
Meter Run Size 4.026" Orifice Size 1.000 Type Chart L-10-8 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. 10 = 595 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 595 psia (h)
P_t = (h) + (f) = 595 psia (i)
Wellhead casing shut-in pressure (Dwt) 954 psig + 12 = 966 psia (j)
Wellhead tubing shut-in pressure (Dwt) 954 psig + 12 = 966 psia (k)
P_c = (j) or (k) whichever well flowed through = 966 psia (l)
Flowing Temp. (Meter Run) 43 °F + 460 = 503 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 483 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{302}{(\text{Integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.000}{1.000} \right) = 302 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{302}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.85}} = 355 \text{ MCF/day}$$

SUMMARY

P_c = 966 psia
Q = 302 Mcf/day
P_w = 596 psia
P_d = 483 psia
D = 355 Mcf/day

Company Magnolia Petroleum Company
By C. V. Massey
Title 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
2436	0.162	8.060	1.306	354.025	355.331	596



OK

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Pool Blanco Formation Mesaverde County Mo Arriba
Purchasing Pipeline Pacific Northwest Pipe Line Corporation Date Test Filed March 23, 1959
Operator Magnolia Petroleum Company Lease Jioarilla "H" Well No. 7 LT-M
Unit H Sec. 1 Twp. 26 Rge. 34 Pay Zone: From 5423' To 5897'
Casing: OD 5" WT. 15# Set At 5980' Tubing: OD 2 3/8" WT. 4.7# T. Perf. 5884
Produced Through: Casing - Tubing X Gas Gravity: Measured 0.665 Estimated -
Date of Flow Test: From 2-15-59 To 2-19-59 * Date S.I.P. Measured 2-12-58
Meter Run Size 4.026" Orifice Size 2.000" Type Chart Spr. R. 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 (7.41)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) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1695 psig + 12 = 1707 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1707 psia (l)
Flowing Temp. (Meter Run) 74 °F + 460 _____ = 534 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 853 psia (n)

FLOW RATE CALCULATION

Q = 2404 X $\left(\frac{\sqrt{\frac{1}{1}}}{\sqrt{\frac{1}{1}}} \right)^2 = \underline{2404}$ MCF/da
(Integrated)

DELIVERABILITY CALCULATION

D = Q 2404 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75} = \underline{2182}$ MCF/da.
 $\left[\frac{1707^2 - 853^2}{1707^2 - 2182^2} \right]^{0.75}$

SUMMARY

P_c = 1707 psia Company Magnolia Petroleum Company
Q = 2404 Mcf/day By William A. Morgan
P_w = 654 psia Title Jr. Gas Engineer
P_d = 853 psia Witnessed by _____
D = 2182 Mcf/day Company _____

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(FcQ) ² (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
3913	0.248	510.8	126.7	301.401		

