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 **Blanco-Mesa Verde** Formation **Mesa Verde** County **Rio Arriba**

Purchasing Pipeline **Pacific Northwest Pipe Line Corp.** Date Test Filed **5-17-57**

Operator **Magnolia Petroleum Co.** Lease **Jicarilla "H"** Well No. **1 LT MV**

Unit **H** Sec. **11** Twp. **26N** Rge. **3W** Pay Zone: From **5386'** To **5882'**

Casing: OD **5½"** WT. **14#** Set At **5965'** Tubing: OD **2-3/8"** WT. **4.7#** T. Perf. **5382'**

Produced Through: Casing ____ Tubing **X** Gas Gravity: Measured ____ Estimated **0.67**

Date of Flow Test: From **4-17-57** To **4-25-57** * Date S.I.P. Measured **9-3-56**

Meter Run Size **2.068"** Orifice Size **1.375"** Type Chart **Sq. Rt.** Type Taps **Flange**

OBSERVED DATA

Flowing casing pressure (Dwt) ____ psig + 12 = ____ psia (a)

Flowing tubing pressure (Dwt) **520** psig + 12 = **532** psia (b)

Flowing meter pressure (Dwt) **518** psig + 12 = **530** psia (c)

Flowing meter pressure (meter reading when Dwt. measurement taken:

Normal chart reading ____ psig + 12 = ____ psia (d)

Square root chart reading (**7.30**)^2 x spring constant **10** = **533** psia (d)

Meter error (c) - (d) or (d) - (c) ± = **3** psi (e)

Friction loss, Flowing column to meter:

(b) - (c) Flow through tubing: (a) - (c) Flow through casing = **2** psi (f)

Seven day average static meter pressure (from meter chart):

Normal chart average reading ____ psig + 12 = ____ psia (g)

Square root chart average reading (**7.25**)^2 x sp. const. **10** = **526** psia (g)

Corrected seven day avge. meter press. (p_f) (g) + (e) = **529** psia (h)

P_t = (h) + (f) = **531** psia (i)

Wellhead casing shut-in pressure (Dwt) ____ psig + 12 = ____ psia (j)

Wellhead tubing shut-in pressure (Dwt) **1,700#** psig + 12 = **1,712** psia (k)

P_c = (j) or (k) whichever well flowed through = **1,712** psia (l)

Flowing Temp. (Meter Run) **68** °F + 460 = **528** °Abs (m)

P_d = ½ P_c = ½ (1) = **856** psia (n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{\underline{1069}} \quad X \quad \left(\frac{\sqrt{(c)\,530} = \sqrt{.9944}}{\sqrt{(d)\,533}} = .9972 \right)^* = \underline{1,066} \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\,\underline{1,066} \quad \left[\frac{P_c^2 - P_d^2 = 2,198,208}{P_c^2 - P_w^2 = 2,625,794} \right]^{n=0.75} \quad 0.8752 \quad = \underline{933} \text{ MCF/da.}$$

SUMMARY

P_c = **1,712** psia

Q = **1,066** Mcf/day

P_w = **552.4** psia

P_d = **856** psia

D = **933** Mcf/day

Company **Magnolia Petroleum Co.**

By *Warren W. King*

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	Pt^2 (Column i)	P$_t$^{2} + R^2	P$_w$
3606	0.231	100.4	23.19	281.96	305.15	552.4