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 **Wildcat** _____ Formation **Graneros-Dakota** County **Rio Arriba**

Purchasing Pipeline **Pacific Northwest Pipeline Corporation** Date Test Filed **6-21-57**

Operator **Northwest Production Corp.** Lease **"T"** Well No. **4-6**

Unit **E** Sec. **6** Twp. **26N** Rge. **4W** Pay Zone: From **8090** To **8364**

Casing: OD **5½** WT. **15.5 #** Set At **8375** Tubing: OD **2-3/8** WT. **4.7** T. Perf. _____

Produced Through: Casing **17** Tubing **X** Gas Gravity: Measured **.670** Estimated _____

Date of Flow Test: From **3-17-57** To **3-23-57** *Date S.I.P. Measured **2-23-57**

Meter Run Size **2"** Orifice Size _____ Type Chart _____ Type Taps _____

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 **505** psig + 12 = **517** 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) = **517** psia (i)

Wellhead casing shut-in pressure (Dwt) **1055** psig + 12 = **1067** psia (j)

Wellhead tubing shut-in pressure (Dwt) **2094** psig + 12 = **2106** psia (k)

P_c = (j) or (k) whichever well flowed through = **2106** psia (l)

Flowing Temp. (Meter Run) _____ °F + 460 = _____ °Abs (m)

P_d = ½ P_c = ½ (l) = **1053** psia (n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{\underline{1,277}} \quad X \quad \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \underline{\quad\quad} = \underline{\quad\quad} \right)^* = \underline{\quad\quad} \text{MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\underline{\quad 1,277 \quad} \left[\frac{\left(P_c^2 - P_d^2\right) = \underline{3326.427}}{\left(P_c^2 - P_w^2\right) = \underline{4119.954}} \right]^n \quad \underline{0.8517} = \underline{1,088} \text{ MCF/da.}$$

SUMMARY

P_c = **2106** psia	Company	**Northwest Production Corp.**
Q = **1277** Mcf/day	By	**Ray Phillips** RAY PHILLIPS
P_w = **561.5** psia	Title	**Asst Mgr. Prod Operations**
P_d = **1053** psia	Witnessed by	
D = **1088** Mcf/day	Company	

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)2$	$(F_cQ)^2 (1-e^{-S})$ / R^2	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
3360	**0.333**	**144,144**	**48,000**	**267,289**	**315,289**	**561.5**