

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 Bianco Formation Mesa Verde County Rio Arriba  
Purchasing Pipeline Pacific Northwest Pipeline Corp. Date Test Filed 6-21-57  
Operator Northwest Production Corp. Lease "M" Well No. 7-8  
Unit A Sec. 8 Twp. 26N Rge. 4W Pay Zone: From 3948 To 6160  
Casing: OD 5 WT. 11.5 Set At 6216 Tubing: OD 2-3/8 WT. 4.7 T. Perf. \_\_\_\_\_  
Produced Through: Casing \_\_\_\_\_ Tubing X Gas Gravity: Measured .655 Estimated \_\_\_\_\_  
Date of Flow Test: From 5-17-57 To 5-23-57 \* Date S.I.P. Measured 10-1-56  
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 (\_\_\_\_\_) <sup>2</sup> 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 335 psig + 12 = 347 psia (g)  
Square root chart average reading (\_\_\_\_\_) <sup>2</sup> x sp. const. \_\_\_\_\_ = \_\_\_\_\_ psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = \_\_\_\_\_ psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 347 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1070 psig + 12 = 1082 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1141 psig + 12 = 1153 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 1153 psia (l)  
Flowing Temp. (Meter Run) \_\_\_\_\_ °F + 460 \_\_\_\_\_ = \_\_\_\_\_ °Abs (m)  
P<sub>d</sub> = ½ P<sub>c</sub> = ½ (l) \_\_\_\_\_ = 577 psia (n)

Q = 144 X  $\left( \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\sqrt{(d)}}{\sqrt{(d)}} \right)^* =$  \_\_\_\_\_ MCF/da  
(Integrated)

DELIVERABILITY CALCULATION

D = Q 144  $\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{996.480}{1029.763} \cdot .9757 =$  141 MCF/da.

SUMMARY

P<sub>c</sub> = 1153 psia  
Q = 144 Mcf/day  
P<sub>w</sub> = 347.4 psia  
P<sub>d</sub> = 577 psia  
D = 141 Mcf/day  
Company Northwest Production Corp.  
By Ray Phillips RAY PHILLIPS  
Title Asst Mgr, Prod Operations  
Witnessed by \_\_\_\_\_  
Company \_\_\_\_\_

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

REMARKS OR FRICTION CALCULATIONS

| GL   | (1-e <sup>-S</sup> ) | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> )<br>R <sup>2</sup> | P <sub>t</sub> <sup>2</sup><br>(Column i) | P <sub>t</sub> <sup>2</sup> + R <sup>2</sup> | P <sub>w</sub> |
|------|----------------------|---------------------------------|--|---|--|----------------|
| 4003 | 0.253                | 1.833                           | .464   | 299.209                                   | 299.673                                      | 347.4          |

