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2-File

Initial Deliverability  
Test

Form C-122-A  
Revised April 20, 1955

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 EL PASO NATURAL GAS COMPANY Date Test Filed 12-9-57  
Operator PACIFIC NORTHWEST PIPELINE Lease Rosa Well No. 17-20  
Unit N Sec. 20 Twp. 31N Rge. 5W Pay Zone: From 5772' To 5678'  
Casing: OD 5" WT.  Set At 5836' Tubing: OD 2-3/8" WT. 4.7 T. Perf. 5728'  
Produced Through: Casing  Tubing xx Gas Gravity: Measured .585 Estimated   
Date of Flow Test: From 10-31-57 To 11-8-57 Date S.I.P. Measured 12-29-56  
Meter Run Size  Orifice Size 1.000 Type Chart 8q. 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 ( \_\_\_\_\_ ) <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 \_\_\_\_\_ psig + 12 = \_\_\_\_\_ psia (g)  
Square root chart average reading ( 5.75 ) <sup>2</sup> x sp. const. 1.500 = 496 psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = \_\_\_\_\_ psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = 496 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1192 psig + 12 = 1204 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 1192 psig + 12 = 1204 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = 1204 psia (l)  
Flowing Temp. (Meter Run) 56 °F + 460 \_\_\_\_\_ = 516 °Abs (m)  
P<sub>d</sub> = ½ P<sub>c</sub> = ½ (l) \_\_\_\_\_ = 602 psia (n)

FLOW RATE CALCULATION

Q = 250 X  $\left( \frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \underline{250}$  MCF/da  
(integrated)

DELIVERABILITY CALCULATION

D = Q 250  $\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75} = \underline{232}$  MCF/da.  
 $\left[ \frac{1,087,212}{1,202,406} \right]^{.75}$

SUMMARY

P<sub>c</sub> = 1204 psia  
Q = 250 Mcf/day  
P<sub>w</sub> = 497 psia  
P<sub>d</sub> = 602 psia  
D = 232 Mcf/day

Company PACIFIC NORTHWEST PIPELINE CORP.  
By Original signed by G. H. Peppin  
Title District Production Engineer  
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> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
3351	0.216	5,527	1,194	246,016	247,210	497

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1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a constant function, and its value is determined by the initial condition  $f(0) = 1$ .

2. In the second part, we consider the problem of finding the maximum value of the function  $f(x)$  on the interval  $[0, 1]$ . It is shown that the maximum value is attained at  $x = 0$  and is equal to 1.

3. The third part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a constant function, and its value is determined by the initial condition  $f(0) = 1$ .

4. In the fourth part, we consider the problem of finding the maximum value of the function  $f(x)$  on the interval  $[0, 1]$ . It is shown that the maximum value is attained at  $x = 0$  and is equal to 1.

5. The fifth part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a constant function, and its value is determined by the initial condition  $f(0) = 1$ .

6. In the sixth part, we consider the problem of finding the maximum value of the function  $f(x)$  on the interval  $[0, 1]$ . It is shown that the maximum value is attained at  $x = 0$  and is equal to 1.

7. The seventh part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a constant function, and its value is determined by the initial condition  $f(0) = 1$ .