

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESSAGEWIDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool Name: _____ Formation: _____ County: _____

~~Purchasing Pipeline~~ ~~and the Southwest Pipeline Corporation~~ Date Test Filed ~~January 7, 1967~~

Operator _____
 Unit _____
 Sec. _____
 Twp. _____
 Rge. _____
 Pay Zone: From _____ To _____
 Well No. _____

Produced Through: Casing _____ Tubing _____ Gas Gravity: Measured _____ Estimated _____

_____Meter Run Size_____Office Size_____Type Chart_____Type Tops_____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ $\text{psig} + 12 =$ _____ data (a)

Flowing tubing pressure (Dwt) _____ $\text{psig} + 12 =$ _____ data (b)

Flowing meter pressure (Dwt) _____ $\text{psig} + 12 =$ _____ data (c)

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

(d) Normal chart reading _____ $\text{psia} \pm 12$ _____ psia

(d) Square root chart reading (_____) $^2 \times$ spring constant _____ psia

(e) Meter error (c) - (d) or (d) - (c) _____ $\pm$ _____ psia

(b) - (c) Flow through tubing: (a) - (c) Flow through casing

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

_____ psi

(f)

Normal chart average reading _____
 Square root chart average reading (_____) $\times$ sp. const. _____
 Corrected seven day ave. meter press. (p_7^c) (g) + (e) _____

Wellhead casing shut-in pressure (DWI) = $p_{sig} + 12$ = p_{sig}

Wellhead tubing shut-in pressure (DWI) = $p_{sig} + 12$ = p_{sig}

$P_d = \frac{1}{2} P_c = \frac{1}{2} (1)$

Flowing Temp. (Meter Run)

$P_c = (1)$ or (x) whichever well flowed through

$\frac{1}{2} F + 460$

psia (n) =

psia (m) =

psia (1) =

FLOW RATE CALCULATION

$$\frac{d}{dx} \left(\int_{-\infty}^{\infty} f(x) dx \right) = f(x)$$

DELIVERABILITY CALCULATION

$$D = \begin{pmatrix} p_2^c - p_2^w \\ p_2^c - p_2^d \end{pmatrix} = \begin{pmatrix} 100.100 \\ 98.700 \end{pmatrix}$$

SUMMARY

$P_c = \frac{\text{Total}}{\text{Total}}$

Company _____

RECEIVED
 Title _____
 Witnessed by _____
 By _____
 MCI/day _____
 Pw = _____
 P = _____
 100

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

GL	$(1-e^{-s})$	$(F^{\infty})^2$	H^2	P_1^2	(Column 1)
----	--------------	------------------	-------	---------	---------------------

0404	0305	0206	0107	0008	9909	9810	9711	9612
------	------	------	------	------	------	------	------	------

3-2-5-5-0-4-100

11. 9. 1941

10

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

It is shown that the function $f(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $f(x)$ has a horizontal asymptote at $y = \frac{\pi}{2}$ as $x \rightarrow \pm\infty$.

2. In the second part of the paper, we consider the function $g(x)$ defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt$$

It is shown that the function $g(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $g(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4}$ as $x \rightarrow \pm\infty$.

3.

4. The third part of the paper is devoted to the study of the properties of the function $h(x)$ defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt$$

It is shown that the function $h(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $h(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4} + \frac{\pi}{6}$ as $x \rightarrow \pm\infty$.

5. In the fourth part of the paper, we consider the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt$$

It is shown that the function $k(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $k(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4} + \frac{\pi}{6} + \frac{\pi}{8}$ as $x \rightarrow \pm\infty$.

6. The fifth part of the paper is devoted to the study of the properties of the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt$$

It is shown that the function $l(x)$ is increasing and concave down on the interval $(-\infty, \infty)$. Moreover, it is proved that the function $l(x)$ has a horizontal asymptote at $y = \frac{\pi}{2} + \frac{\pi}{4} + \frac{\pi}{6} + \frac{\pi}{8} + \frac{\pi}{10}$ as $x \rightarrow \pm\infty$.