

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

March 6, 1968

El Paso Natural Gas Company  
P. O. Box 990  
Farmington, New Mexico 87401

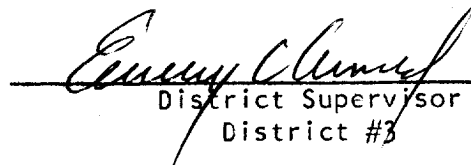
Attention: Mr. Carl Matthews

SUBJECT: NON-STANDARD GAS PRORATION UNIT CONSISTING OF 326.34 ACRES  
IN THE Basin Dakota GAS POOL DESCRIBED AS  
FOLLOWS:

TOWNSHIP 26 NORTH, RANGE 9 WEST, NMPM

SECTION: 19 West half

By authority granted me by Rule 5(B) of Order No. R-1670, as amended, the  
above-described acreage has been approved as a non-standard gas proration  
unit to be dedicated to the Huerfano Unit  
Well No. 162, located 800' from N. line & 800' from W. line of said  
Section 19.

  
District Supervisor  
District #3

cc: Oil Conservation Commission  
Santa Fe, New Mexico

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

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

3. Finally, we consider the function  $h(x)$  defined by the equation

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