

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

DATE December 28, 1955

MR. W. B. MACEY  
OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

RE: PROPOSED ORDER NO. DC 266

Dear Mr. Macey:

I have examined the application for dual completion dated 12/19  
for Gulf Elbert Shipp "B" #3 7-19-37  
Operator Lease Name Well No. Unit S-T-R

and my recommendations are as follows:

**OK-CR**

**Order R-717 should be cancelled upon completion of this well. RFM**

Yours very truly,

OIL CONSERVATION COMMISSION

Engineer-District 1

The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation
 
$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $f(x)$  is an odd function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $f(x)$  is concave down on  $\mathbb{R}$ .

In the second part of the paper, we study the function  $g(x)$  defined by the equation
 
$$g(x) = \int_0^x \frac{1}{1+t^4} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $g(x)$  is an even function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $g(x)$  is concave up on  $\mathbb{R}$ .

The third part of the paper is devoted to the study of the function  $h(x)$  defined by the equation
 
$$h(x) = \int_0^x \frac{1}{1+t^6} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $h(x)$  is an odd function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $h(x)$  is concave down on  $\mathbb{R}$ .

In the fourth part of the paper, we study the function  $k(x)$  defined by the equation
 
$$k(x) = \int_0^x \frac{1}{1+t^8} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $k(x)$  is an even function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $k(x)$  is concave up on  $\mathbb{R}$ .

The fifth part of the paper is devoted to the study of the function  $l(x)$  defined by the equation
 
$$l(x) = \int_0^x \frac{1}{1+t^{10}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $l(x)$  is an odd function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $l(x)$  is concave down on  $\mathbb{R}$ .

In the sixth part of the paper, we study the function  $m(x)$  defined by the equation
 
$$m(x) = \int_0^x \frac{1}{1+t^{12}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $m(x)$  is an even function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $m(x)$  is concave up on  $\mathbb{R}$ .

The seventh part of the paper is devoted to the study of the function  $n(x)$  defined by the equation
 
$$n(x) = \int_0^x \frac{1}{1+t^{14}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $n(x)$  is an odd function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $n(x)$  is concave down on  $\mathbb{R}$ .

In the eighth part of the paper, we study the function  $o(x)$  defined by the equation
 
$$o(x) = \int_0^x \frac{1}{1+t^{16}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $o(x)$  is an even function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $o(x)$  is concave up on  $\mathbb{R}$ .

The ninth part of the paper is devoted to the study of the function  $p(x)$  defined by the equation
 
$$p(x) = \int_0^x \frac{1}{1+t^{18}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $p(x)$  is an odd function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $p(x)$  is concave down on  $\mathbb{R}$ .

In the tenth part of the paper, we study the function  $q(x)$  defined by the equation
 
$$q(x) = \int_0^x \frac{1}{1+t^{20}} dt$$
 for  $x \in \mathbb{R}$ . It is shown that  $q(x)$  is an even function and that it is strictly increasing on  $\mathbb{R}$ . Moreover, it is proved that  $q(x)$  is concave up on  $\mathbb{R}$ .