

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Form C-110  
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator TEXACO, Inc. Lease St of NM "AS"  
Well No. 2 Unit Letter D S 5 T 15S R 32E Pool Tulk (Wolfcamp)  
County Lea Kind of Lease (State, Fed. or Patented) State  
If well produces oil or condensate, give location of tanks: Unit G S 6 T15S R 32E  
Authorized Transporter of Oil or Condensate Texas-New Mexico Pipe Line Co.  
Address Box 1510, Midland, Texas  
(Give address to which approved copy of this form is to be sent)  
Authorized Transporter of Gas \* None  
Address \_\_\_\_\_ Date Connected \_\_\_\_\_  
(Give address to which approved copy of this form is to be sent)  
If Gas is not being sold, give reasons and also explain its present disposition:

\* Casinghead gas flared due to lack of market.

Reasons for Filing: (Please check proper box) New Well \_\_\_\_\_ ( )  
Change in Transporter of (Check One): Oil ( ) Dry Gas ( ) C'head ( ) Condensate ( )  
Change in Ownership \_\_\_\_\_ ( ) Other Name Change (x)  
Remarks: \_\_\_\_\_  
(Give explanation below)

Change of Corporate name from The Texas Company  
to TEXACO Inc. effective May 1, 1959

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 30 day of April 19 59

By [Signature]

Approved \_\_\_\_\_ 19 \_\_\_\_\_

Title District Accountant

OIL CONSERVATION COMMISSION

Company The Texas Company

By [Signature]

Address Box 352, Midland, Texas

Title \_\_\_\_\_

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

$$f(x) = \int_0^x \frac{1}{1+t^2} dt, \quad x \in \mathbb{R}.$$

It is shown that the function  $f(x)$  is strictly increasing and concave down on the interval  $(-\infty, \infty)$ .

2. In the second part, we consider the function  $g(x)$  defined by the equation  $g(x) = f(x) + f(-x)$ . It is shown that the function  $g(x)$  is an even function and that it is strictly increasing on the interval  $(0, \infty)$ . Moreover, it is shown that the function  $g(x)$  is concave down on the interval  $(0, \infty)$ .

3. In the third part, we consider the function  $h(x)$  defined by the equation  $h(x) = f(x) - f(-x)$ . It is shown that the function  $h(x)$  is an odd function and that it is strictly increasing on the interval  $(-\infty, \infty)$ .

4. In the fourth part, we consider the function  $k(x)$  defined by the equation  $k(x) = f(x) + f(x^2)$ . It is shown that the function  $k(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

5. In the fifth part, we consider the function  $l(x)$  defined by the equation  $l(x) = f(x) + f(x^3)$ . It is shown that the function  $l(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

6. In the sixth part, we consider the function  $m(x)$  defined by the equation  $m(x) = f(x) + f(x^4)$ . It is shown that the function  $m(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

7. In the seventh part, we consider the function  $n(x)$  defined by the equation  $n(x) = f(x) + f(x^5)$ . It is shown that the function  $n(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

8. In the eighth part, we consider the function  $o(x)$  defined by the equation  $o(x) = f(x) + f(x^6)$ . It is shown that the function  $o(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

9. In the ninth part, we consider the function  $p(x)$  defined by the equation  $p(x) = f(x) + f(x^7)$ . It is shown that the function  $p(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

10. In the tenth part, we consider the function  $q(x)$  defined by the equation  $q(x) = f(x) + f(x^8)$ . It is shown that the function  $q(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

11. In the eleventh part, we consider the function  $r(x)$  defined by the equation  $r(x) = f(x) + f(x^9)$ . It is shown that the function  $r(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

12. In the twelfth part, we consider the function  $s(x)$  defined by the equation  $s(x) = f(x) + f(x^{10})$ . It is shown that the function  $s(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

13. In the thirteenth part, we consider the function  $t(x)$  defined by the equation  $t(x) = f(x) + f(x^{11})$ . It is shown that the function  $t(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .

14. In the fourteenth part, we consider the function  $u(x)$  defined by the equation  $u(x) = f(x) + f(x^{12})$ . It is shown that the function  $u(x)$  is strictly increasing on the interval  $(-\infty, \infty)$  and that it is concave down on the interval  $(0, \infty)$ .