

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

April 22, 1970

C
Coastal States Gas Producing Company
North Texas Division
Wilco Building
Midland, Texas

Gentlemen:

O
Enclosed herewith please find Administrative
Order PMX-34 for your Flying "M" (San Andres) Unit
Tract 7 Well No. 1 located in Unit H, 660 feet from the
East line and 2200 feet from the North line of Section
16, Township 9 South, Range 33 East, NMPM.

Very truly yours,

P
A. L. PORTER, Jr.
Secretary-Director

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ALP/JEK/og

cc: Oil Conservation Commission - Hobbs
Oil & Gas Engineering Committee - Hobbs

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Secretary-Director

ABP\TEK\od

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APPLICATION OF COASTAL STATES GAS
PRODUCING COMPANY TO EXPAND ITS
FLYING "M" (SAN ANDRES) UNIT
PRESSURE MAINTENANCE PROJECT IN
THE FLYING M - SAN ANDRES POOL IN
LEA COUNTY, NEW MEXICO.

ORDER PMX-34

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION COMMISSION

Under the provisions of Order No. R-3229, Coastal States Gas Producing Company has made application to the Commission on April 2, 1970, for permission to expand its Flying "M" (San Andres) Unit Pressure Maintenance Project in the Flying M-San Andres Pool, Lea County, New Mexico.

NOW, on this 22nd day of April, 1970, the Secretary-Director finds:

1. That application has been filed in due form.
2. That satisfactory information has been provided that all offset operators have been duly notified of the application.
3. That no objection has been received within the waiting period as prescribed by Order No. R-3229.
4. That the proposed injection well is eligible for conversion to water injection under the terms of Order No. R-3229.
5. That the proposed expansion of the above-referenced pressure maintenance project will not cause waste nor impair correlative rights.
6. That the application should be approved.

IT IS THEREFORE ORDERED:


That the applicant, Coastal States Gas Producing Company, be and the same is hereby authorized to inject water into the San Andres formation through the following described well for purposes of pressure maintenance, to wit:

Flying "M" (San Andres) Unit Tract 7 Well No. 1
located in Unit H, 660 feet FEL and 2200 feet
FNL of Section 16, Township 9 South, Range 33
East, NMPM.

PROVIDED HOWEVER, That the applicant shall inject water through tubing with a packer set at approximately 4450 feet in the production casing in said well.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


A. L. PORTER, Jr.
Secretary-Director

Seal

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 continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2}$. It is also shown that the function $f(x)$ is bounded on the interval $(-\infty, \infty)$ and that its range is the interval $(0, \frac{\pi}{2})$.

2. The second part of the paper is devoted to the study of the properties of 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 continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2} + \frac{1}{1+x^4}$. It is also shown that the function $g(x)$ is bounded on the interval $(-\infty, \infty)$ and that its range is the interval $(0, \frac{\pi}{2} + \frac{\pi}{4})$.

3. 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 continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2} + \frac{1}{1+x^4} + \frac{1}{1+x^6}$.

4. The fourth part of the paper is devoted to the study of the properties of 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 continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2} + \frac{1}{1+x^4} + \frac{1}{1+x^6} + \frac{1}{1+x^8}$.

5. 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 continuous and differentiable on the interval $(-\infty, \infty)$ and that its derivative is equal to $\frac{1}{1+x^2} + \frac{1}{1+x^4} + \frac{1}{1+x^6} + \frac{1}{1+x^8} + \frac{1}{1+x^{10}}$.