

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

February 20, 1978

C
O
P
Y

Mr. Ray Woods
Coastal States Gas Producing Company
Box 235
Midland, Texas 79701

Dear Mr. Woods:

After reviewing all submitted information, it is my determination that the injection pressure can be increased on the Flying "M" Unit Tract 14 Well No. 4 covered under Order PMX No. 70.

You are therefore authorized to inject into the subject well at the requested pressure of 1800 psi.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

JOINT COMMISSION ON INVESTIGATION
P. O. BOX 1082
KANSAS CITY, MISSOURI 64108

February 10, 1978

Mr. Ray Woods
Coastal States Gas Producing Company
Box 135
Midland, Texas 79701

Dear Mr. Woods:

After reviewing all submitted information, it is my recommendation that the injection pressure can be increased on the Flying W Unit Tract in Well No. A covered under Order No. 10.

You are therefore authorized to inject into the subject well at the requested pressure of 1800 psi.

Yours very truly,

JOHN J. KANEY
Director

108-14

COASTAL STATES GAS PRODUCING COMPANY

WEST TEXAS - NEW MEXICO DISTRICT

600 Wilco Building
Midland, Texas 79701

February 10, 1978

Mailing Address
P.O. Box 235
(915) 682-7925

Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

ATTN: Mr. Joe D. Ramey

File
↓
Re: Order PMX No.70
Flying "M" (SA) Unit
Tract 14, Well No.4

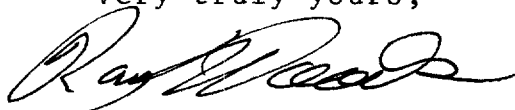
Dear Mr. Ramey:

I am writing with reference to your letter of January 27, 1978, requesting more information on the type water to be injected in our proposed Tract 14, well No.4, we will be injecting a mixture of fresh and produced water. If the fresh water were stopped, the specific gravity of the fluid would never exceed 1.091 or a fluid gradient of 0.472 psi per foot of depth.

In the tests run on Tract 15 well No.13, the fluid injected was fresh water which would have a minimum gradient of 0.436 psi per foot. Therefore, the absolute maximum difference in bottom hole pressure would be $4450 (.472 - .436) = 160$ psi. Since the apparent fracture pressure was shown to be between 2000 and 2100 psi, a pressure limitation of 1800 psi should give plenty of latitude to keep from fracturing the formation.

You can be assured that we do not intend to exceed the fracture gradient on any of our injection wells in this flood because of the possible detriment to the flood and possibility of loss of water to the "C" zone. In fact this is the only reason not to exceed fracture pressure since it would take a rate of 10 - 15 barrels per minute to create a fracture height above the top of the San Andres Formation. Our anticipated maximum rate is only 0.56 BPM. It is my impression that EPA is considering restricting waterflood injection pressures to some assumed fracture gradient with the belief that injected water is contaminating fresh water zones by way of induced fractures. It is my professional opinion that they are far from the facts. Such contaminations are caused by bad cement or casing unless such fresh water zones are just a few feet from the zone perforated.

Very truly yours,



Ray Woods
District Engineer

RW:1b

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

ORDER PMX NO. 70

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 November 7, 1977, for permission to expand its Flying M Pressure Maintenance Project in the Flying M San Andres Pool in Lea County, New Mexico.

NOW, on this 22nd day of November, 1977, the Secretary-Director finds:

1. That application has been filed in due form.
2. That satisfactory information has been provided that all offset operator and surface owners have been duly notified, and
3. That no objections have been received within the waiting period 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 project will not cause waste or 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 plastic-lined tubing set in a packer at approximately 4395 feet in the following described well for purposes of secondary recovery, to wit:

Flying M Unit Tract 14, Well No. 4, located in Unit I of Section 20, Township 9 South, Range 33 East, NMPM, Lea County, New Mexico;

IT IS FURTHER ORDERED:

That the operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

That the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

That the injection well or system shall be equipped with a pop-off valve or device which will limit the wellhead pressure to a maximum of 890 pounds per square inch; provided however that the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of the above upon the operator's establishing that such higher pressure will not result in fracturing of confining strata.

-2-

Order PMX No. 70

That the operator shall notify the supervisor of the Commission's Hobbs District Office before injection is commenced through said well;

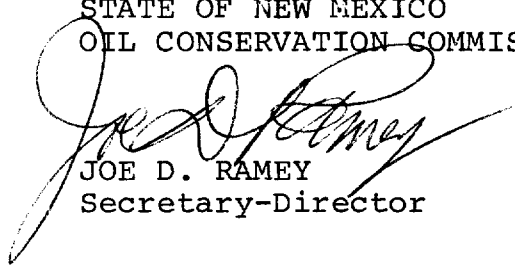
That the operator shall immediately notify the Supervisor of the Commission's Hobbs District Office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely or necessary to correct such failure or leakage.

PROVIDED FURTHER:

That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after notice and hearing, the Commission may terminate the authority hereby granted in the interest of conservation. That applicant shall submit monthly reports of the disposal operation in accordance with Rule 704 and 1120 of the Commission Rules and Regulations.

APPROVED at Santa Fe, New Mexico, on this 22nd day of November, 1977.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



JOE D. RAMEY
Secretary-Director

S E A L