



MAIN OFFICE 030

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STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

August 21, 1958

ADDRESS CORRESPONDENCE TO:
P. O. BOX 1079
SANTA FE, N. M.

*Case 1492
file*

Oil Conservation Commission
State Capitol Building
Santa Fe, New Mexico

Attn. Mr. A. L. Porter, Jr.
Secretary-Director

Dear Mr. Porter:

I have just received a letter from R. E. Broschat of Amerada Petroleum Corporation with reference to their proposed water flood under Case No. 1492, a copy of which was sent to you. Enclosed with this letter is a diagrammatic sketch of the casing and cementing program in this well. The surface string is landed at 296 feet and cement circulated to the surface. The base of the Ogallala formation, according to the Amerada electric log, is 295 feet. By elementary mathematics, we deduce that the casing is landed and cemented one foot below the base of the Ogallala which we do not consider sufficient.

We oppose the use of this well for the conductance of salt water to a lower formation, unless the annulus between the surface string and the intermediate string of pipe is completely filled with cement, or as an alternate, a packer be set on the tubing at least 400 feet below the surface, which will seal off all salt water from the casing wall above the packer. This, of course, would necessitate the use of tubing for injection purposes.

Yours truly,

S. E. Reynolds
State Engineer

FEI/ma
cc-Mr. R. E. Broschat
Monument, N. M.
Amerada Petro. Corp.
Box 591, Midland, Texas
F. H. Hennighausen

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Division

AMERADA PETROLEUM CORPORATION

P. O. BOX 2040

TULSA 2, OKLA.

ROBERT J. STANTON
GENERAL COUNSEL
JOHN S. MILLER
ASSISTANT GENERAL COUNSEL

LEGAL DEPARTMENT

July 11, 1958

H. D. BUSHNELL
HAROLD J. FISHER
ROBERT T. JAMES
JAMES C. McWILLIAMS
VIRGIL C. MORELLE
ARDEN E. ROSS
ATTORNEYS

Re: Application for Amerada
Petroleum Corporation to create
pilot water flood unit in Lea
County, New Mexico, covering NE/4
of SW/4 and the N/2 of Section 10
and the S/2 of the S/2 of Section
3, Township 15 South, Range 33
East, Lea County, New Mexico.

New Mexico Oil Conservation Commission
107 Mabry Hall
Capitol Building
Santa Fe, New Mexico

Gentlemen:

Enclosed is our Application in original and two copies for authority to create a pilot water flood unit covering certain lands in Lea County, New Mexico.

This Application is to substitute the former Application mailed to you with our cover letter of July 3, 1958, and which we requested that you disregard by our later letter of July 8, 1958.

We request that this matter be set for hearing before the Commission for the regular monthly hearing in August or, before the examiner, if an earlier date can be set.

Very truly yours,



H. D. BUSHNELL

HDB:CE
Enc:3

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JUL 14 AM 8:38
MAIN OFFICE OCC

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
AMERADA PETROLEUM CORPORATION FOR)
AUTHORITY TO CREATE A PILOT WATER)
FLOOD UNIT COMPRISED OF THE NE/4 OF)
THE SW/4 AND THE N/2 OF SECTION 10)
AND THE S/2 OF THE S/2 OF SECTION 3)
ALL IN TOWNSHIP 15S, RANGE 33E, LEA)
COUNTY, NEW MEXICO.)

CAUSE NO. 1492

*in Saunders Pool
(Perm. Basin)*

APPLICATION

Comes now Amerada Petroleum Corporation and alleges and states the following in this Application:

1. Applicant proposes to create a pilot water flood unit comprised of the NE/4 of the SW/4 and the N/2 of Section 10 and the S/2 of the S/2 of Section 3 all in Township 15 South, Range 33 East, Lea County, New Mexico, for the purpose of maintaining reservoir pressure for secondary recovery of oil and gas from under the lands herein described in accordance with the provisions of Rule 701 of this Commission.

2. The plat attached, marked Exhibit No. 1, shows the proposed intake well of Amerada-State "SG" Well No. 1, as located in the NE/4 of the SW/4 of Section 10, the names of owners of record or operators of leases within one-half mile of the intake well and the location and designation of other wells within the lands herein described.

3. The formation from which the wells within the lands described is producing is the Pennsylvanian Lime, located at an interval of 9600 to 10,000 feet.

4. The log of the intake well, Amerada-State "SG" No. 1, is attached and marked as Exhibit No. 2 and made a part of this Application.

5. The casing of the intake well is as follows:

- 13-3/8" surface casing set at 296 feet with 250 sacks of cement;
- 8-5/8" casing set at 4245 feet with 1500 sacks of cement;
- 5-1/2" casing set at 10,035 feet with 400 sacks of cement.

6. The intake well was drilled to a total depth of 10,069 feet with a drilled out depth of 10,015 feet and perforated at the following intervals:

9874 feet to 9895 feet
9907 feet to 9935 feet
9942 feet to 9950 feet
9970 feet to 9980 feet;

7. Applicant proposes to set a packer on the tubing below the top of the cement located at 8000 feet behind the 5-1/2" casing and to build up pressure on the annulus to 1000 pounds.

8. The source of the water is from the Pennsylvanian and estimated volume to be injected into the intake well is 500 barrels per day.

9. The applicant Amerada Petroleum Corporation, sole owner of the leases covering the lands herein described, will be the operator.

WHEREFORE, Amerada Petroleum Corporation prays that this matter be set for hearing, that notice thereof be given as required by law, and that upon hearing this Commission enter its order granting authority for this applicant to create the pilot water flood unit for the purpose of maintaining reservoir pressure by secondary recovery and to inject water in the intake well in the manner herein proposed.

AMERADA PETROLEUM CORPORATION

BY



H. D. BUSHNELL
ATTORNEY