

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

Case # 1072

IN THE MATTER OF THE APPLICATION OF  
KEWANEE OIL COMPANY FOR PERMISSION  
TO INJECT WATER INTO ITS PEARL WELL  
NO. 26, IN THE NW $\frac{1}{4}$ SW $\frac{1}{4}$  OF SECTION 30,  
TOWNSHIP 17 SOUTH, RANGE 33 EAST, FOR  
THE PURPOSE OF SECONDARY RECOVERY, AND  
TO ABANDON GAS INJECTION HERETOFORE  
PERMITTED.

No.

APPLICATION

The Kewanee Oil Company applies for permission to inject water in its Pearl well above described to promote secondary recovery, and, in support thereof, respectfully shows to the Commission as follows:

1. That the applicant is a corporation organized under the Laws of the State of Delaware, and is authorized to transact business in the State of New Mexico, that its mailing address in connection with this application is Post Office Box 3786, Odessa, Texas.

2. That the applicant is the owner and holder of federal oil and gas lease, Serial No. LC-058697b, insofar as the same covers the following described lands in Lea County, New Mexico, to-wit:

All of Section 25, Township 17 South,  
Range 32 East, and Lots 1, 2, 3 and 4  
and ~~in~~ in the East Half of West Half of Section  
30, Township 17 South, Range 33 East,  
containing 968.56 acres, more or less,

and said oil and gas lease is known and designated as the applicant's Pearl lease, and that the lands covered by said oil and gas lease are located in the Maljamar Field of Lea County, New Mexico.

3. That on May 1, 1952, and in the case No. 356, the Oil Conservation Commission of the State of New Mexico by Order permitted the injection of gas into applicant's Pearl well No. 26 in the Northwest Quarter of Southwest Quarter of said Section 30, together with other wells, for the purpose of secondary recovery from the Grayburg-San Andreas formation from which adjoining wells on such lease were producing, and the applicant seeks permission to abandon such gas injection insofar only as such Pearl No. 26 well is concerned, and to conduct a pilot water flood operation through such well for the purpose of secondary recovery from the adjoining wells on such lease; and the applicant is setting forth below the information required by applicable rules and regulations of the Commission:

(1) That applicant's Pearl well No. 26 is 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, and was originally drilled as a five spot location; that the applicant owns and operates 20 oil wells on such Pearl lease producing from the Grayburg formation, and two dual completion wells producing from the Queens Sand and through which gas is injected into the Grayburg formation and one other gas injection well; and that there is attached hereto as Exhibit "A" a plat showing the location of the intake well and the location of all other wells on such Pearl lease, and the names of the lessees-operators within one-half mile radius of such Pearl lease.

(2) That the formation from which the wells are producing or have produced on such Pearl lease is the lower Grayburg formation of Permian age, and locally referred to in the Maljamar area as the Sixth Zone.

*Order 10/12*  
*100 3/24/42*  
*266*

(3) The formation to be affected by the water injection is the lower Grayburg formation, which is a porous dolomite found at depths ranging from approximately 4180 to 4230 feet.

(4) The log of the intake well is hereto attached as Exhibit "B".

(5) The description of the intake well's casing is as follows:

8 5/8ths inch, set at 1272 feet, cemented with 100 sacks.

7 inch, set at 3930 feet, cemented with 200 sacks.

(6) It is proposed to inject water through two-inch tubing with a production packer set at 3880 feet; the annular space between the tubing and the casing will be filled with lease crude; the water will be obtained from applicant's water supply well, known as Pearl No. 12-X-WS in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of the above numbered Section 25; and the amount of water to be injected will be approximately 300 barrels per day.

(7) That the name and address of the operator of this pilot flood operation will be this applicant.

4. That under permission heretofore granted by the Commission, the applicant has heretofore been injecting gas into its Pearl well No. 26 for the purpose of secondary recovery from the Grayburg formation by its adjoining wells on such Pearl lease, and that, as the result of engineering studies of reservoir conditions, it is the applicant's belief that greater secondary recovery can now be accomplished through water flooding, and that the same will be in the best interests of conservation and prevention of waste.

WHEREFORE, applicant prays that the Commission fix a time and place for the hearing on this Application, and that,

