Entered October 24 1955

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 959 Order No. R-708

THE APPLICATION OF SOUTHERN CALIFORNIA PETROLEUM CORPORATION FOR THE APPROVAL OF A PILOT PRESSURE MAINTENANCE PROGRAM BY GAS INJECTION INTO THE LOWER SEVEN -RIVERS FORMATION IN ONE OR BOTH OF TWO WELLS, SAID INJECTION WELLS LOCATED IN SW/4 SE/4, SECTION 24, AND NE/4 NW/4 SECTION 25, TOWNSHIP 24 SOUTH, RANGE 36 EAST, IN THE LANGLIE-MATTIX OIL POOL, LEA COUNTY, NEW MEXICO.

## ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on September 15, 1955, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this  $\underline{3^{th}}_{-}$  day of October, 1955, the Commission, a quorum being present, having considered the records and testimony adduced, and being fully advised in the premises,

## FINDS:

1. That due notice having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

2. That applicant's request to institute a pressure maintenance program in the Lower Seven-Rivers Formation of the Langlie-Mattix Oil Pool, Lea County, New Mexico, by gas injection, utilizing one or both of two proposed injection wells, is in the interests of conservation, will tend to retard the drop of reservoir pressure, and will tend to result in an increased production of oil that might otherwise be lost, thereby preventing waste; that the correlative rights of others with interests in the pool will be protected and that the application should be granted.

3. That a pressure maintenance program by gas injection into the Lower Seven-Rivers formation of the Langlie-Mattix Oil Pool is of an experimental nature, and after a reasonable test period the results should be reviewed at another public hearing before this Commission.

4. That the pressure maintenance program should be limited during the pilot stage of the program to the applicant's leases which cover the following area:

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> TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM E/2 NE/4, SW/4 NE/4, SE/4, E/2 SW/4 of Section 24 N/2 of Section 25

5. That under the applicant's program, gas injection should be limited to the following two wells of applicant: the A. E. Thomas Well No. 5 (SW/4 SE/4 Section 24, Township 24 South, Range 36 East) and the S. W. Harrison Well No. 5 (NE/4 NW/4 Section 25, Township 24 South, Range 36 East).

6. That the applicant has requested that they be allowed to transfer the present oil allowable from wells converted to gas injection to other oil wells on the lease producing from the Lower Seven-Rivers formation, but since the applicant does not desire allowables above the top allowable, no purpose at present would be served in granting such a transfer, therefore a future hearing may consider any allowable increases above top allowables.

7. That it is quite probable that the producing gas-oil ratio of some of producing oil wells from the Lower Seven-Rivers formation within the pilot gas injection area will in the future exceed the limiting GOR of 10,000:1, due to the gas injection program and therefore a net GOR rule should be established that would give the applicant an allowable credit by reason of gas injected.

8. That no specific objection has been made to the granting of this application.

## IT IS THEREFORE ORDERED:

1. That the application of Southern California Petroleum Corporation for permission to institute a pilot pressure maintenance program in the Langlie-Mattix Oil Pool by the injection of gas into either or both their A. E. Thomas Well No. 5, SW/4 SE/4 Section 24, and S. W. Harrison Well No. 5, NE/4 NW/4 Section 25, both in Township 24 South, Range 36 East, NMPM, be, and the same hereby is, approved.

2. That permission is hereby granted to inject gas in said injection wells, gas to enter only the Lower Seven-Rivers formation, the producing horizon in the pressure maintenance area of the Langlie-Mattix Oil Pool, Lea County, New Mexico.

3. That the pilot pressure maintenance program is hereby limited to the applicant's leases as follows:

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM  $\overline{E/2 \text{ NE}/4, \text{SW}/4 \text{ NE}/4, \text{SE}/4, \text{E}/2 \text{ SW}/4 \text{ Section 24}}$ N/2 Section 25

4. That applicant is hereby granted oil allowable credit by reason of gas injected. The permitted GOR of each well shall remain at 10,000 cubic feet per barrel of oil produced. Any well producing with a GOR

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in excess of 10,000:1 shall be allowed to produce a daily volume of gas equal to the top daily oil allowable multiplied by 10,000 cubic feet. This volume is the daily gas limit for such well. If the gas is returned to the Lower Seven-Rivers formation, the permitted net GOR shall be 10,000: 1. Net gas is defined as the difference between the monthly produced gas volume and the volume of gas returned to the producing formation in that month. The net gas volume divided by the barrels of oil produced in the same period equals the net GOR. The daily gas limit shall be divided by the net GOR to give the adjusted daily oil allowable. The adjusted oil allowable will never exceed the top allowable for a particular month.

5. That the commission will on its own motion call a hearing as soon as possible after June 10, 1956, to receive testimony on the effect of the pilot gas injection program in this area and determine if the project should be expanded or discontinued.

6. That the Petitioner, Southern California Petroleum Corporation, will submit monthly reports to the Commission showing the monthly oil production and gas production on each well producing from the Langlie-Mattix Oil Pool within the area outlined in paragraph 3 above, and the amount of gas injected into the reservoir through each injection well bore.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

John 7 Summers JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

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