BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

INR 1 - M 7 54

IN THE MATTER OF THE APPLICATION OF THE ATLANTIC REFINING COMPANY FOR APPROVAL OF WATER FLOOD PROJECTS, EDDY COUNTY, NEW MEXICO. APPLICANT SEEKS AUTHORITY TO INSTITUTE THREE SEPARATE WATER FLOOD PROJECTS COVERING THREE SEPARATE CONTIGUOUS OIL AND GAS LEASEHOLD INTERESTS OWNED BY APPLICANT IN THE SHUGART POOL, EDDY COUNTY, NEW MEXICO BY THE INJECTION OF WATER INTO THE YATES FORMATION AND THE UPPER PORTION OF THE QUEEN FORMATION THROUGH FIVE INJEC-TION WELLS IN SECTIONS 34 and 35, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M. CANT ALSO SEEKS THE ESTABLISHMENT OF AN ADMINISTRATIVE PROCEDURE WHEREBY THE PROJECT AREAS MAY BE EXPANDED OR INCLUDED WITH OTHER LANDS IN A UNIT AGREEMENT AND FOR APPROVAL OF ADDITIONAL INJECTION WELLS

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Comes The Atlantic Refining Company acting by and through the undersigned attorneys and hereby makes application for approval of three separate water flood projects covering three separate contiguous oil and gas leasehold interests owned by applicant in the Shugart pool, Eddy County, New Mexico in accordance with Rule 701 of the rules of the New Mexico Oil Conservation Commission, and in support thereof respectfully shows:

1. Applicant is the owner of three separate oil and gas leases covering the lands hereinafter described which are referred to as Project Areas "A", "B" and "C" respectively:

Project Area "A":

Oil and gas lease embracing the following Federal lands:

Township 18 South, Range 31 East, N.M.P.M.

Section 34 - $S_{2}^{1}NE_{4}^{1}$, $N_{2}^{1}SE_{4}^{1}$

Section 35 - NW_{4}^{1} , $N_{2}^{1}SW_{4}^{1}$

containing 400 acres, more or less

Project Area "B":

Oil and gas lease embracing the following Federal lands:

Township 18 South, Range 31 East, N.M.P.M. Section 34 - SEZNWZ, NZSWZ, SEZSWZ containing 160 acres, more or less

Project Area "C":

Oil and gas lease embracing the following Federal lands:

Township 18 South, Range 31 East, N.M.P.M.

Section 34 - N¹/₂NE¹/₄

containing 80 acres, more or less

- 2. That there is attached hereto, made a part hereof and for purposes of identification marked Exhibit "A", a plat showing the location of the respective project areas hereinabove described and the location of the proposed injection wells in connection with each project, three of which are located on Project Area "A" and one on each of the other project areas. Exhibit "A" also shows the location of all other wells within a radius of two miles from the respective project areas, as well as the formations from which said wells are producing or have produced and the ownership of the lease-hold interests within said two mile radius.
- 3. There are also filed herewith electrical logs of each of the proposed injection wells as shown on Exhibit "A", which are identified as Exhibits "B", "C", "D", "E" and "F" respectively.
- 4. There are attached hereto as Exhibits "G", "H", "I", "J" and "K" diagrammatic sketches of the proposed injection wells showing the casing strings, including diameters and setting depths, perforated intervals, tubing strings, including diameters and setting depths and the type and location of packers.

5. It is proposed to inject water into the Yates and upper Queen formations of the Shugart pool in the injection wells shown on Exhibit "A" for the respective project areas. The wells within the project areas are currently producing an average of approximately 5 barrels of oil per day and are classed as stripper wells comong within the meaning of water flood projects as defined by the Commission rules. It is anticipated that approximately 400 carrels of water per day will be injected into each of the 5 wells. Water for injection purposes will be purchased from the Double Eagle Corporation of New Mexico and the water to be used will be fresh water. The United States Geological Survey has given its informal approval of the proposed project areas.

The injection of water in each of the injection wells on the respective project areas will serve as pilot operations and applicant intends to make an effort to unitize the lands within the respective project areas with other lands in the Shugart pool so as to cover a greater portion thereof, and for such purpose desires that an appropriate procedure be set up to permit the Oil Conservation Commission to administratively approve the expansion of each water flood project to include additional lands and to approve additional injection wells and to ultimately consolidate the project areas with other lands which may be included in the proposed unit area.

- 6. Applicant seeks the establishment of the usual allowable for each project area as provided by the rules of the Commission.
- 7. That a copy of this application with all exhibits has been mailed to the State Engineer of the State of New Mexico, Capitol Building, Santa Fe, New Mexico simultaneously with making this application to the Commission.

Applicant requests that this matter be set down for hearing at the earliest possible date.

Respectfully submitted,

THE ATTANTIC REFINING COMPANY

Attorney

HINKLE∧ BONDURANT & CHRISTY

Attorneys for Applicant

Box 10

Roswell, New Mexico

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Gulf ∳ ¹⁻⁸	Canoco É Pan Am. D/R V. Welchefal	Conoco € Pan Am. D/R T. Boyd S/R	
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HINKLE AREA
SHUGART POOL
EDDY COUNTY, NEW MEXICO
ATLANTIC RICHFIELD COMPANY