

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

MAY 18 1969

APPLICATION OF ATLANTIC RICHFIELD COMPANY)
 FOR APPROVAL OF A WATERFLOOD PROJECT FOR)
 THE SHUGART POOL (YATES-SEVEN RIVERS-QUEEN-)
 GRAYBURG) TO BE EMBRACED WITHIN THE EAST)
 SHUGART UNIT AREA CONSISTING OF 1,359.40)
 ACRES IN TOWNSHIPS 18 AND 19 SOUTH, RANGE)
 31 EAST, EDDY COUNTY, NEW MEXICO, INCLUDING)
 11 INJECTION WELLS, AND FOR APPROVAL OF AN)
 UNORTHODOX LOCATION OF AN INJECTION WELL)
 TO BE LOCATED 100 FEET FROM THE SOUTH LINE)
 AND 990 FEET FROM THE WEST LINE OF SECTION)
 35, TOWNSHIP 18 SOUTH, RANGE 31 EAST, AND)
 FOR APPROVAL OF A PROJECT ALLOWABLE IN)
 ACCORDANCE WITH RULE 701 OF THE COMMISSION)

Case 4138

Oil Conservation Commission
 Box 2088
 Santa Fe, New Mexico 87501

Comes Atlantic Richfield Company, acting by and through the undersigned attorneys, and hereby makes application for approval of a waterflood project for the Shugart Pool (Yates-Seven Rivers-Queen-Grayburg) to be embraced within the East Shugart Unit Area consisting of 1,359.40 acres in Townships 18 and 19 South, Range 31 East, Eddy County, New Mexico, including 11 injection wells, and for approval of an unorthodox location of an injection well to be located 100 feet from the south line and 990 feet from the west line of section 35, Township 18 South, Range 31 East, and for approval of a project allowable in accordance with Rule 701 of the Commission, and in support thereof respectfully shows:

1. That there is filed herewith a plat showing the location of the proposed injection wells and the location of all other wells within a radius of 2 miles from the proposed injection wells and the formation from which said wells are producing or have produced. The plat also shows the boundaries of the proposed East Shugart Unit Area and shows the owners of the oil and gas leases within an area of 2 miles of the proposed unit area.

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2. As indicated by Exhibit "A" filed herewith, there are 11 proposed injection wells. Ten of the injection wells consist of presently producing wells to be converted to injection wells and one of the injection wells will be drilled and it is proposed that said well be drilled at an unorthodox location 100 feet from the south line and 990 feet from the west line of Section 35, Township 18 South, Range 31 East. All of said wells will be completed in such a way as to provide for the injection of water into the Shugart Pool which includes the Yates, Seven Rivers, Queen and Grayburg formations. There is filed herewith logs of all the wells except the injection well to be located upon Cities Service lease in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 34, Township 18 South, Range 31 East which is not available and the unorthodox location which is to be drilled as an injection well. There are also filed herewith diagrammatic sketches of all the proposed injection wells, showing all casing strings including diameters and setting depth, quantities used and tops of cement, perforated or open hole intervals, tubing strings including diameters and setting depths, and types and location of packers to be used.

3. That the proposed waterflood project is within the boundaries of the proposed Unit Agreement for the East Shugart Unit Area and that application has been filed for approval of the unit agreement by the Commission.

4. It is proposed to inject water for secondary recovery purposes into the Shugart Pool which includes the Yates, Seven Rivers, Queen and Grayburg formations. The unit agreement identifies the top of the formations at 2,312 feet on the Lane Wells Radioactivity Log for the Atlantic Richfield Hinkle "A" No. 6 well located 2310 feet from the north line and 330 feet from the east line of Section 34, Township 18 South, Range 31 East and the bottom of the formation at a point 2,000 feet below the point at 2,312 feet on the log.

5. That applicant proposes to inject water purchased from the Double Eagle Water Company and that it is anticipated that approximately 7,000 barrels per day will be injected after all wells which are to be converted to injection wells have been converted and the new well drilled.

6. That applicant also desires a project allowable to be approved in accordance with Rule 701 of the rules of the Commission.

7. That in the opinion of applicant said waterflood project will be in the interest of conservation, prevention of waste, the protection of correlative rights and will tend to promote the greatest ultimate recovery of oil and gas from that portion of the Shugart Pool covered by the project.

8. Applicant requests that this matter be set down for hearing at the examiner's hearing to be held on May 21, 1969.

Respectfully submitted,

ATLANTIC RICHFIELD COMPANY

By



Member of the Firm of
HINKLE, BONDURANT & CHRISTY
Attorneys for Applicant