

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**Case No. 10711  
Order No. R-9896**

**APPLICATION OF YATES PETROLEUM CORPORATION  
FOR APPROVAL OF A WATERFLOOD PROJECT AND  
QUALIFICATION FOR THE RECOVERED OIL TAX  
RATE, EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on April 8, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 18th day of May, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Yates Petroleum Corporation, seeks authority to institute a waterflood project on its Creek "AL" Federal Lease comprising the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24, and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico, by the injection of water into the Queen and Grayburg formations, Shugart-Yates-Seven Rivers-Queen-Grayburg Pool, through the gross perforated interval from approximately 3,150 feet to 3,554 feet in the following described wells:

**WELL NAME & NUMBER**

**WELL LOCATION**

Creek "AL" No. 6  
Creek "AL" No. 7  
Creek "AL" No. 9

660' FNL & 990' FWL (Unit D) Section 25  
330' FSL & 990' FWL (Unit M) Section 24  
1650' FNL & 990' FWL (Unit E) Section 25

(3) The applicant further seeks to establish an administrative procedure whereby additional wells may be approved for injection and/or production within the project area without the necessity for further hearings.

(4) Such provisions and procedures are currently contained within the Oil Conservation Division Rules and Regulations and it is unnecessary to duplicate such provisions within this order.

(5) The proposed project area is wholly comprised of the Creek "AL" Federal Lease. The applicant has consulted with the Bureau of Land Management (BLM), and, according to applicant's testimony, the BLM has no objection to the proposed waterflood project.

(6) The wells within the proposed project area are in an advanced state of depletion and should therefore be properly classified as "stripper wells".

(7) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(8) According to applicant's testimony, the subject waterflood project will be operated in conjunction with the proposed Hanson Operating Company Shugart Unit Waterflood Project (being the subject of Division Case Nos. 10685 and 10686, heard on March 18, 1993) which is proposed to comprise portions of Sections 25 and 26, Township 18 South, Range 30 East, and a portion of Section 30, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(9) At the request of the applicant, the record in Case No. 10686 was incorporated in the immediate case.

(10) There is a temporarily abandoned well within the "area of review" of all of the proposed injection wells, this being the Creek "AL" Well No. 10 located in Unit P of Section 23, Township 18 South, Range 30 East, NMPM, which is not currently completed in such a manner which will prevent the migration of fluid from the proposed injection zone.

(11) According to applicant's testimony, it will re-enter and complete the Creek "AL" Well No. 10 as a producing well within the proposed waterflood project.

(12) Prior to commencing injection operations into the proposed injection wells, the applicant should be required to re-enter and case and cement the Creek "AL" Well No. 10 in such a manner which will prevent the migration of fluid from the proposed injection zone and as approved by the supervisor of the Division's Artesia District Office.

(13) The injection of water into the proposed injection wells should be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(14) Prior to commencing injection operations into the proposed injection wells, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(15) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 630 psi.

(16) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(17) The operator should give advance notification to the supervisor of the Artesia District Office of the Division of the date and time of the conductance of re-entry operations on the Creek "AL" Well No. 10, and the installation of injection equipment and of the mechanical integrity pressure tests of the injection wells in order that the same may be witnessed.

(18) The proposed waterflood project should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(19) The applicant further requests that the subject waterflood project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(20) The evidence presented indicates that the subject waterflood project meets all the criteria for approval.

(21) The approved "project area" should initially comprise the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24, and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico.

(22) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(23) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(24) The injection authority granted herein for the proposed injection wells should terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Yates Petroleum Corporation for authority to institute a waterflood project on its Creek "AL" Lease comprising the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24, and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico, by the injection of water into the Queen and Grayburg formations, Shugart-Yates-Seven Rivers-Queen-Grayburg Pool, through the gross perforated interval from approximately 3,150 feet to 3,554 feet in the following described wells located in Sections 24 and 25 is hereby approved:

<u>WELL NAME &amp; NUMBER</u>	<u>WELL LOCATION</u>
Creek "AL" No. 6	660' FNL & 990' FWL (Unit D) Section 25
Creek "AL" No. 7	330' FSL & 990' FWL (Unit M) Section 24
Creek "AL" No. 9	1650' FNL & 990' FWL (Unit E) Section 25

(2) Prior to commencing injection operations into the aforesaid injection wells, the applicant shall re-enter and case and cement the Creek "AL" Well No. 10, located in Unit P of Section 23, Township 18 South, Range 30 East, NMPM, in such a manner which will prevent the migration of fluid from the proposed injection zone and as approved by the supervisor of the Division's Artesia District Office.

(3) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(4) Injection shall be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation; the casing-tubing annulus in each well shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 630 psi.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) Prior to commencing injection operations, the casing in each injection well shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(8) The operator shall give advance notification to the supervisor of the Artesia District Office of the Division of the date and time of the conductance of re-entry operations on the Creek "AL" Well No. 10, and the installation of injection equipment and of the mechanical integrity pressure tests of the injection wells in order that the same may be witnessed.

(9) The applicant shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing or packer in any of the injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such steps as may be timely and necessary to correct such failure or leakage.

(10) The subject waterflood project is hereby designated the Creek "AL" Federal Shugart Waterflood Project, and the applicant shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(11) The subject waterflood project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(12) The approved "project area" shall initially comprise the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24, and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico.

(13) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

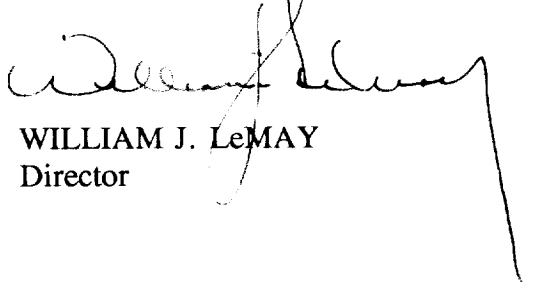
(14) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(15) The injection authority granted herein for the proposed injection wells shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(16) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LeMAY  
Director

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