OIL CONSERVATION DIVISION 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

June 3, 1998

Department of Taxation and Revenue P.O. Box 630 Santa Fe, New Mexico 87509-0630

Attention:

John Chavez, Secretary

Re:

Certification of EOR Project

Exxon Corporation

Knox-Adkins Cooperative

Leasehold Waterflood Project

Dear Secretary Chavez:

Enclosed is a copy of the certification issued to Exxon Corporation for its Knox-Adkins Cooperative Leasehold Waterflood Project, certified by this Division effective June 3, 1998, to be a qualified enhanced oil recovery project. If the operator applies for certification of positive production response within five years from the effective certification date, this project will be eligible for the *recovered oil tax rate* as provided in the New Mexico Enhanced Oil Recovery Act (Sections 7-29A-1 through 7-29A-5, NMSA, 1978).

Only oil production from that portion of the lands identified in the certification which is actually developed for enhanced oil recovery will be eligible for the reduced tax rate. At the time positive production response is certified, we will identify for you the specific lands and wells within the project which qualify for the *recovered oil tax rate*.

Sincerely,

Torillhotenbery
LoriWrotenbery

Director

LW/DRC

Enclosures

xc: File EOR-34

June 3, 1998

Exxon Corporation c/o Mr. James Bruce P.O. Box 1056 Santa Fe, New Mexico 87501

CERTIFICATION OF ENHANCED OIL RECOVERY PROJECT FOR RECOVERED OIL TAX RATE

The New Mexico Oil Conservation Division hereby certifies that the following Enhanced Oil Recovery Project has been approved by the Division as a qualified secondary recovery project, pursuant to the provisions of the New Mexico Enhanced Oil Recovery Act (Sections 7-29A-1 through 7-29A-5, NMSA, 1978). In order to qualify for the Recovered Oil Tax Rate, you must apply for certification of positive production response within five years from the effective date of this certification. Only production from that portion of the project area identified herein which is actually developed for enhanced recovery will qualify for the reduced tax rate.

If operation of this project is terminated for any reason, the operator of the project must notify this Division and the Secretary of the Taxation and Revenue Department not later than the thirtieth day after termination.

NAME OF PROJECT:

Knox-Adkins Cooperative

Leasehold Waterflood Project

OCD ORDER NO.:

R-10736-A

OPERATOR:

Exxon Corporation

ADDRESS:

P.O. Box 4358

Midland, Texas 77210-4358

CERTIFICATION DATE:

June 3, 1998

PROJECT AREA:

Township 21 South, Range 36 East, NMPM

Section 10: All

APPROVED BY:

STATE OF NEW MEXICO

QIL **QONSERVATION DIVISION**

LORI WROTENBERY

DIRECTOR

SEAL

xc: File EOR-34

Mr. John Chavez, Secretary

New Mexico Taxation and Revenue Dept.

JAMES BRUCE

ATTORNEY AT LAW

POST OFFICE BOX 1056 SANTA FE, NEW MEXICO 87504

SUITE B 612 OLD SANTA FE TRAIL SANTA FE, NEW MEXICO 87501

(505) 982-2043 (505) 982-2151 (FAX)

May 11, 1998

PECEIVED

MAY 1 0 1998

Oil Conservation Division

Hand Delivered

Lori Wrotenbery, Director Oil Conservation Division 2040 South Pacheco Street Santa Fe, New Mexico 87505

Dear Ms. Wrotenbery:

Exxon Corporation, the operator of the Knox-Adkins Cooperative Leasehold Waterflood Project, approved by Division Order No. R-10736-A, hereby requests the Division to issue a Certificate of Qualification for the project area. A draft Certificate is enclosed. Exxon intends to commence injection immediately. Your attention to this matter is appreciated.

Very truly yours,

James bruce

Attorney for Exxon Corporation

CERTIFICATE OF QUALIFICATION OF AN ENHANCED OIL RECOVERY PROJECT

The New Mexico Oil Conservation Division hereby certifies that the following Enhanced Oil Recovery Project has been approved by the Division as a secondary project, pursuant to the provisions of the New Mexico Enhanced Oil Recovery Act (L. 1992, Ch. 38). In order to qualify for the Recovered Oil Tax Rate, you must apply to the Division for certification of a positive production response within five years from the date of this certificate. Only production from that portion of the project area identified herein which is actually developed for enhanced recovery will qualify for the reduced tax rate.

If operation of this project is terminated for any reason, the operator of the project must notify this Division and the Secretary of the Taxation and Revenue Department not later than the thirtieth day after termination.

NAME OF PROJECT:

Knox-Adkins Cooperative Leasehold

Waterflood Project

DIVISION ORDER NO.:

R-10736-A

OPERATOR'S ADDRESS:

Exxon Corporation

Attn: William T. Duncan, Jr.

P.O. Box 4358

Midland, Texas 77210-4358

CERTIFICATION DATE:

May ____, 1998

INITIAL PROJECT AREA:

Township 21 South, Range 36 East, N.M.P.M. Section 10: All

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY Director

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:

See Also Onla No. R-10736

CASE NO. 11947 ORDER NO. R-10736-A

APPLICATION OF EXXON CORPORATION FOR A COOPERATIVE LEASEHOLD WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 19, 1998 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 14 day of May, 1998, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised,

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) By Division Order No. R-10736, issued in Case 11665 and dated January 15, 1997, Exxon Corporation ("Exxon") was authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, hereinafter referred to as the "Knox-Adkins Cooperative Leasehold Waterflood Project," by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and.

- (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
- (3) Order No. R-10736 also approved the Knox-Adkins Cooperative Leasehold Waterflood Project as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) Contained in said Order No. R-10736 is a standard provision which terminates injection authority one year after the effective date of the order if: (i) the operator has not commenced injection operations into the subject well(s) or (ii) the Division has not granted a time extension upon written request by the operator for good cause shown [see Ordering Paragraph No. (15) on page 6 of Order No. R-10736].
- (5) Exxon appeared at the March 19, 1998 hearing through legal counsel and reported that Exxon had complied with most of the provisions of Order No. R-10736, including the drilling and completion of the following two water injection wells:
 - (a) the A. J. Adkins Well No. 11 (API No. 30-025-33777) located 1500 feet from the North line and 2266 feet from the West line (Unit F) of Section 10; and,
 - (b) the J. D. Knox Well No. 13 (API No. 30-025-33778) located 2337 feet from the South line and 1543 feet from the East line (Unit J) of Section 10.
- (6) Exxon, however, failed to commence water injection into the Knox-Adkins Cooperative Leasehold Waterflood Project by January 15, 1998 or request a time extension.
- (7) Injection authority for the two subject wells granted by Order No. R-10736 terminated on January 15, 1998.
- (8) At this time Exxon, in reapplying for approval of its Knox-Adkins Cooperative Leasehold Waterflood Project and approval of the project as an "Enhanced Oil Recovery Project" pursuant to the Enhanced Oil Recovery Act, is seeking to reinstate Order No. R-10736 in its entirety.
 - (9) Since no changes have occurred in the ownership of the area affected by this

project since Division Case No. 11665 was originally heard, Exxon's request to renew the provisions of the order should be approved.

IT IS THEREFORE ORDERED THAT:

- (1) Ordering Paragraph (1) of Order No. R-10736, issued in Case 11665 and dated January 15, 1997, is hereby amended to read as follows:
 - "(1) The applicant, Exxon Corporation ("Exxon"), is hereby authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two wells:
 - (a) the A. J. Adkins Well No. 11 (API No. 30-025-33777) located 1500 feet from the North line and 2266 feet from the West line (Unit F) of Section 10; and,
 - (b) the J. D. Knox Well No. 13 (API No. 30-025-33778) located 2337 feet from the South line and 1543 feet from the East line (Unit J) of Section 10."
- (2) Ordering Paragraph (15) of Order No. R-10736, issued in Case 11665 and dated January 15, 1997, is hereby amended to read as follows:
 - " (15) The injection authority granted for the injection wells shall terminate on April 30, 1999 if the operator has not commenced injection operations into the wells, provided however, the Division, upon written request by the operator, may grant an extension for good cause shown."
- (3) All other provisions of said Order No. R-10198 shall remain in full force and effect until further notice.

(4) 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

LORI WROTENBERY

Director

SEAL

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:

See also Orden No. 2-10736-A

CASE NO. 11665 ORDER NO. R-10736

APPLICATION OF EXXON CORPORATION FOR A COOPERATIVE LEASEHOLD WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 5, 1996 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>15th</u> day of January, 1997 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) At this time Exxon Corporation ("Exxon") seeks authority to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico by the reinjection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two proposed wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and,

- (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
- (3) The applicant proposed that the project area consist of the following described fee leases all in said Section 10:

Lease Name	<u>Acreage</u>	Area
Exxon's J. D. Knox	320	E/2
Exxon's A. J. Adkins	300	S/2 NE/4 NW/4, W/2 NW/4, SE/4 NW/4, and SW/4
the A. J. Adkins lease, operated by Texaco Exploration and	20	N/O NEW NING
Production, Inc. ("Texaco")	20	N/2 NE/4 NW/4.

Although there are two separate leases that cover the W/2 of said Section 10, royalty ownership is common thereunder.

- (4) Exxon testified at the time of the hearing that although Texaco will share in the benefits of the waterflood project, the applicant will bear the full cost of the project.
- (5) From testimony presented by the applicant and from Division records cumulative primary oil recovery from the Oil Center-Blinebry Pool encompassing the proposed project area is approximately 1.8 million barrels.
- (6) The Oil Center-Blinebry oil production from the proposed project area can be considered to be in an advanced state of depletion and should therefore be properly classified as "stripper production".
- (7) Exxon testified that approximately 500,000 barrels of additional incremental oil production is expected to be recovered from the proposed project area by spending an estimated \$1,000,000.00 to drill and complete the two initial injection wells and to recomplete existing wellbores in order to complete an efficient flood pattern with six producing wells within said Section 10.
- (8) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil thereby preventing waste, exhibits sound engineering practices, is in the best interest of conservation, and will not impair correlative rights.
 - (9) The applicant submitted data on the proposed conversion of the two subject

injection wells, water wells in the area, and all other wells (including plugged wells) which penetrate the zone of interest within the 1/2-mile "area-of-review" of the two subject injection wells. This data shows that wells in the area are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone, and includes testimony indicating no evidence of open faults or any other hydrologic connection between the injection zone and the fresh water resources in the area.

- (10) The operator should take all steps to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.
- (11) Injection into each of the two wells should be accomplished through 2 3/8-inch internally plastic or cement lined tubing installed in a packer set no higher than 100 feet above the top of the upper most perforation; the casing-tubing annulus in each well should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.
- (12) The injection wells or pressurization system for each well should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure at the wellhead to no more than 0.2 psi per foot of depth to the top most perforation.
- (13) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.
- (14) The operator should give advance notice to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.
- (15) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.
- (16) 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).
 - (17) The evidence presented indicates that the subject waterflood project meets

all the criteria for approval.

- (18) The approved "project area" should be designated the "Knox-Adkins Cooperative Leasehold Waterflood Project" and is to comprise the 640 acres as described above in Finding Paragraph Nos. (2) and (3).
- (19) 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.
- (20) 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.
- (21) 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 applicant, Exxon Corporation ("Exxon"), is hereby authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two proposed wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and,
 - (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
 - (2) The subject waterflood project is hereby designated the "Knox-Adkins

Cooperative Leasehold Waterflood Project".

- (3) Exxon, as operator, shall take all steps necessary to ensure that the injected water only enters and remains confined to 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 internally plastic or cement 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 Division Director shall have the authority to administratively authorize an increase in the injection pressure limitation placed upon any well upon a proper showing by the operator that such higher pressure will not result in the migration of the injected water from its respective interval or fracture the confining strata.
- (6) Each injection well or respective pressurization system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1160 psi.
- (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 applicant shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in either one 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.
- (9) Should it become necessary, the supervisor of the Hobbs District Office of the Division or the Director may at any time order a decrease of the injection pressure on any of the subject injection wells.
- (10) The operator of the Knox-Adkins Cooperative Leasehold Waterflood Project shall conduct injection operations in accordance with all applicable Division rules, regulations, and policies, including Division General Rules 701 through 708 and shall submit monthly progress reports in accordance with Division General Rules 706 and 1115.

IT IS FURTHER ORDERED THAT:

- (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 be limited to that 640-acre area described in Decretory Paragraph No. (1) above.
- (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

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. 11947 ORDER NO. R-10736-A

APPLICATION OF EXXON CORPORATION FOR A COOPERATIVE LEASEHOLD WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO:

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 19, 1998 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 14 day of May, 1998, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised,

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) By Division Order No. R-10736, issued in Case 11665 and dated January 15, 1997, Exxon Corporation ("Exxon") was authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, hereinafter referred to as the "Knox-Adkins Cooperative Leasehold Waterflood Project," by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and,

- (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
- (3) Order No. R-10736 also approved the Knox-Adkins Cooperative Leasehold Waterflood Project as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (4) Contained in said Order No. R-10736 is a standard provision which terminates injection authority one year after the effective date of the order if: (i) the operator has not commenced injection operations into the subject well(s) or (ii) the Division has not granted a time extension upon written request by the operator for good cause shown [see Ordering Paragraph No. (15) on page 6 of Order No. R-10736].
- (5) Exxon appeared at the March 19, 1998 hearing through legal counsel and reported that Exxon had complied with most of the provisions of Order No. R-10736, including the drilling and completion of the following two water injection wells:
 - (a) the A. J. Adkins Well No. 11 (API No. 30-025-33777) located 1500 feet from the North line and 2266 feet from the West line (Unit F) of Section 10; and,
 - (b) the J. D. Knox Well No. 13 (API No. 30-025-33778) located 2337 feet from the South line and 1543 feet from the East line (Unit J) of Section 10.
- (6) Exxon, however, failed to commence water injection into the Knox-Adkins Cooperative Leasehold Waterflood Project by January 15, 1998 or request a time extension.
- (7) Injection authority for the two subject wells granted by Order No. R-10736 terminated on January 15, 1998.
- (8) At this time Exxon, in reapplying for approval of its Knox-Adkins Cooperative Leasehold Waterflood Project and approval of the project as an "Enhanced Oil Recovery Project" pursuant to the Enhanced Oil Recovery Act, is seeking to reinstate Order No. R-10736 in its entirety.
 - (9) Since no changes have occurred in the ownership of the area affected by this

project since Division Case No. 11665 was originally heard, Exxon's request to renew the provisions of the order should be approved.

IT IS THEREFORE ORDERED THAT:

- (1) Ordering Paragraph (1) of Order No. R-10736, issued in Case 11665 and dated January 15, 1997, is hereby amended to read as follows:
 - " (1) The applicant, Exxon Corporation ("Exxon"), is hereby authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two wells:
 - (a) the A. J. Adkins Well No. 11 (API No. 30-025-33777) located 1500 feet from the North line and 2266 feet from the West line (Unit F) of Section 10; and,
 - (b) the J. D. Knox Well No. 13 (API No. 30-025-33778) located 2337 feet from the South line and 1543 feet from the East line (Unit J) of Section 10."
- (2) Ordering Paragraph (15) of Order No. R-10736, issued in Case 11665 and dated January 15, 1997, is hereby amended to read as follows:
 - " (15) The injection authority granted for the injection wells shall terminate on April 30, 1999 if the operator has not commenced injection operations into the wells, provided however, the Division, upon written request by the operator, may grant an extension for good cause shown."
- (3) All other provisions of said Order No. R-10198 shall remain in full force and effect until further notice.

(4) 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

LORI WROTENBERY

Director

SEAL

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. 11665 ORDER NO. R-10736

APPLICATION OF EXXON CORPORATION FOR A COOPERATIVE LEASEHOLD WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 5, 1996 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>15th</u> day of January, 1997 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) At this time Exxon Corporation ("Exxon") seeks authority to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico by the reinjection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two proposed wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and,

- (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
- (3) The applicant proposed that the project area consist of the following described fee leases all in said Section 10:

Lease Name	<u>Acreage</u>	Area
Exxon's J. D. Knox	320	E/2
Exxon's A. J. Adkins	300	S/2 NE/4 NW/4, W/2 NW/4, SE/4 NW/4, and SW/4
the A. J. Adkins lease, operated by Texaco Exploration and		
Production, Inc. ("Texaco")	20	N/2 NE/4 NW/4.

Although there are two separate leases that cover the W/2 of said Section 10, royalty ownership is common thereunder.

- (4) Exxon testified at the time of the hearing that although Texaco will share in the benefits of the waterflood project, the applicant will bear the full cost of the project.
- (5) From testimony presented by the applicant and from Division records cumulative primary oil recovery from the Oil Center-Blinebry Pool encompassing the proposed project area is approximately 1.8 million barrels.
- (6) The Oil Center-Blinebry oil production from the proposed project area can be considered to be in an advanced state of depletion and should therefore be properly classified as "stripper production".
- (7) Exxon testified that approximately 500,000 barrels of additional incremental oil production is expected to be recovered from the proposed project area by spending an estimated \$1,000,000.00 to drill and complete the two initial injection wells and to recomplete existing wellbores in order to complete an efficient flood pattern with six producing wells within said Section 10.
- (8) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil thereby preventing waste, exhibits sound engineering practices, is in the best interest of conservation, and will not impair correlative rights.
 - (9) The applicant submitted data on the proposed conversion of the two subject

injection wells, water wells in the area, and all other wells (including plugged wells) which penetrate the zone of interest within the 1/2-mile "area-of-review" of the two subject injection wells. This data shows that wells in the area are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone, and includes testimony indicating no evidence of open faults or any other hydrologic connection between the injection zone and the fresh water resources in the area.

- (10) The operator should take all steps to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.
- (11) Injection into each of the two wells should be accomplished through 2 3/8-inch internally plastic or cement lined tubing installed in a packer set no higher than 100 feet above the top of the upper most perforation; the casing-tubing annulus in each well should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.
- (12) The injection wells or pressurization system for each well should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure at the wellhead to no more than 0.2 psi per foot of depth to the top most perforation.
- (13) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.
- (14) The operator should give advance notice to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.
- (15) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.
- (16) 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).
 - (17) The evidence presented indicates that the subject waterflood project meets

all the criteria for approval.

- (18) The approved "project area" should be designated the "Knox-Adkins Cooperative Leasehold Waterflood Project" and is to comprise the 640 acres as described above in Finding Paragraph Nos. (2) and (3).
- (19) 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.
- (20) 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.
- (21) 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 applicant, Exxon Corporation ("Exxon"), is hereby authorized to institute a cooperative leasehold waterflood project within a 640-acre area comprising all of Section 10, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, by the re-injection of produced water into the Oil Center-Blinebry Pool through selected perforated intervals from approximately 5,800 feet to 6,000 feet in the following two proposed wells:
 - (a) the A. J. Adkins Well No. 11 to be drilled in the SE/4 NW/4 (Unit F) of said Section 10; and,
 - (b) the J. D. Knox Well No. 13 or No. 14, whichever is applicable, said injection well to be drilled in the NW/4 SE/4 (Unit J) of said Section 10.
 - (2) The subject waterflood project is hereby designated the "Knox-Adkins

Cooperative Leasehold Waterflood Project".

- (3) Exxon, as operator, shall take all steps necessary to ensure that the injected water only enters and remains confined to 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 internally plastic or cement 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 Division Director shall have the authority to administratively authorize an increase in the injection pressure limitation placed upon any well upon a proper showing by the operator that such higher pressure will not result in the migration of the injected water from its respective interval or fracture the confining strata.
- (6) Each injection well or respective pressurization system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1160 psi.
- (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 applicant shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in either one 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.
- (9) Should it become necessary, the supervisor of the Hobbs District Office of the Division or the Director may at any time order a decrease of the injection pressure on any of the subject injection wells.
- (10) The operator of the Knox-Adkins Cooperative Leasehold Waterflood Project shall conduct injection operations in accordance with all applicable Division rules, regulations, and policies, including Division General Rules 701 through 708 and shall submit monthly progress reports in accordance with Division General Rules 706 and 1115.

IT IS FURTHER ORDERED THAT:

- (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 be limited to that 640-acre area described in Decretory Paragraph No. (1) above.
- (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

SEAL