

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. 11208
ORDER NO. R-10390

**APPLICATION OF MERIDIAN OIL, INC. FOR A 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 February 16, 1995 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 19th day of June, 1995 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 the time of the hearing this case was consolidated with Division Case No. 10207 for the purpose of testimony.
- (3) By Order No. R-10317, issued in Case 11207 on February 27, 1995, the Division, upon application by Meridian Oil, Inc., approved the East Corbin Delaware Unit which comprises the following described 760 acres, more or less, of Federal and State lands in Lea County, New Mexico:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM

Section 15: S/2 SW/4
Section 16: SW/4, NE/4 SE/4, and S/2 SE/4
Section 21: NE/4, N/2 NW/4, and SE/4 NW/4
Section 22: N/2 NW/4 and SW/4 NW/4.

(4) The applicant in this matter, Meridian Oil, Inc. ("Meridian"), seeks authority to institute a waterflood project in said East Corbin Delaware Unit by the injection of water into the West Corbin-Delaware Pool through the following three existing wells located in Township 18 South, Range 33 East, NMPM, Lea County, New Mexico:

a) the Meridian Oil, Inc. State "16" Well No. 4 (API No. 30-025-30622), located 548 feet from the South line and 760 feet from the West line (Unit M) of said Section 16 is currently a producing oil well in the subject pool (perforations from 5192 feet to 6248 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval;

b) the Meridian Oil, Inc. State "16" Well No. 8 (API No. 30-025-31168), located 660 feet from the South line and 460 feet from the East line (Unit P) of said Section 16 is currently a producing oil well in the subject pool (perforations from 5200 feet to 5260 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval; and,

c) the Southland Royalty Company Federal "21" Well No. 4 (API No. 30-025-30736), located 779 feet from the North line and 1943 feet from the West line (Unit C) of said Section 21 is currently a producing oil well in the subject pool (perforations from 5156 feet to 5260 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval.

(5) Meridian further requests to drill its Federal "MA" No. 11 well 1340 feet from the North line and 990 feet from the East line (Unit H) of said Section 21 to be utilized as an injection well in said project through perforations from approximately 5200 feet to 5270 feet.

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

(7) 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.

(8) The applicant submitted data on the proposed 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 four 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.

(9) 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.

(10) Injection into each well should be accomplished through either 2 3/8-inch internally plastic-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.

(11) The injection wells or pressurization system for each well should be so equipped as to limit injection pressure at the wellhead to no more than 1040 psi.

(12) 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.

(13) 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.

(14) 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.

(15) 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).

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

(17) The approved "project area" should initially comprise that area described in Finding Paragraph No. (3) above.

(18) 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.

(19) 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.

(20) 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, Meridian Oil, Inc. ("Meridian"), is hereby authorized to institute a waterflood project in its East Corbin Delaware Unit Area (approved by Division Order No. R-10317, issued in Case 11207 on February 27, 1995), by the injection of water into the West Corbin-Delaware Pool through the following three existing wells to be converted from producing oil wells to injectors and one new well to be drilled, all located in Township 18 South, Range 33 East, NMPM, Lea County, New Mexico:

Well Name and Number (API Number)	Footage Location (Unit Letter)	Section	Perforated Injection Interval (feet)
Meridian Oil, Inc. State "16" Well No. 4 (30-025-30622)	548' FSL & 760' FWL (M)	16	5192 - 6248
Meridian Oil, Inc. State "16" Well No. 8 (30-025-31168)	660' FSL & 460' FEL (P)	16	5200 - 5260
Southland Royalty Company Federal "21" Well No. 4 (30-025-30736)	779' FNL & 1943' FWL (C)	21	5156 - 5246
Federal "MA" Well No. 11 (new drill)	1340' FNL & 990' FEL (H)	21	5200 - 5270

(2) The waterflood project, hereby designated the "*East Corbin Delaware Unit Waterflood Project*", shall coincide with the boundary of the East Corbin Delaware Unit Area, as further described below, and was the subject of said Division Order No. R-10317:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM
LEA COUNTY, NEW MEXICO

- Section 15: S/2 SW/4
- Section 16: SW/4, NE/4 SE/4, and S/2 SE/4
- Section 21: NE/4, N/2 NW/4, and SE/4 NW/4
- Section 22: N/2 NW/4 and SW/4 NW/4.

(3) The applicant must 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-lined tubing installed in a packer set approximately 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 for each injection well shall be so equipped as to limit injection pressure at the wellhead to no more than **1040 psi**.

(6) 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.

(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 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.

(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 East Corbin Delaware Unit 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 initially comprise that area described in Decretory Paragraph No. (2) above.

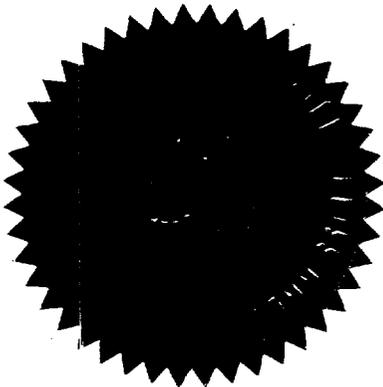
(13) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(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.

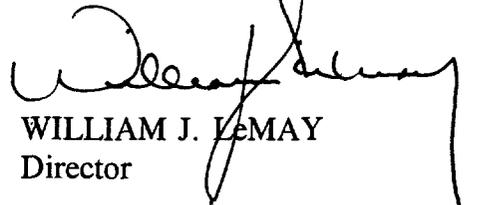
(16) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director