

Entered November 14, 1979

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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 6477  
Order No. R-6177

APPLICATION OF SUN OIL COMPANY  
FOR A WATERFLOOD PROJECT, EDDY  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 14, 1979,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 14th day of November, 1979, the Division  
Director, having considered the testimony, the record, and the  
recommendations of the Examiner, and being fully advised in the  
premises,

FINDS:

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

(2) That the applicant, Sun Oil Company, seeks authority  
to institute a waterflood project on its East Millman Pool Unit  
Area by the injection of water into the Queen and Grayburg  
formations through eleven injection wells in Township 19 South,  
Range 28 East, East Millman Pool, NMPM, Eddy County, New Mexico,  
described as follows:

<u>WELL NAME</u>	<u>NO.</u>	<u>UNIT LETTER</u>	<u>SEC.</u>
Sun Felzer State	1	E	12
Sun State "O"	1	C	13
Sun State "O"	3	O	12
Sun State "O"	4	M	13
Maralo State 272	3	K	12
Maralo State 272	2	M	12
Kersey Bass	1	I	12
Yates E. Parcell	1	G	13
Yates E. Parcell	4	A	13
Gulf Eddy State AN	2	E	13
Gulf Eddy State AN	3	K	13

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

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

(5) That the operator should 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.

(6) That there are certain wells in and near the proposed waterflood project which had casing and cementing or plugging programs which are of doubtful integrity, and which may reasonably be assumed to be capable of providing avenues of escape whereby waters injected into the Queen-Grayburg formations could migrate to other formations and possibly into the fresh water sands in the area.

(7) That the applicant should consult with the Supervisor of the Artesia district office of the Division to determine what remedial work, if any, should be performed on the following described wells prior to commencement of water injection operations in the subject waterflood project:

Kersey Bass Well No. 1	Unit I, Section 28
Ohio Merchant Well No. 1	Unit N, Section 1
Nix and Curtis R & B State Well No. 2	Unit G, Section 12
Donnelly Kinney State Well No. 1	Unit L, Section 18
Depco State 648 Well No. 181	Unit J, Section 14
J. Yates Campbell-Gwaltney Well No. 1	Unit D, Section 18

all in Township 19 South, Range 28 East, NMPM.

(8) That injection into each of the wells described in Finding No. (2) above should be through cement-lined tubing set in a packer, said packer being installed as near as is practicable to the uppermost perforation; that the casing-tubing annulus in each injection well should be loaded with an inert fluid and equipped with an approved pressure gauge or other attention-attracting leak detection device.

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(9) That the injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 900 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(10) That the subject waterflood project should be known as the Sun East Millman Q-GB Waterflood Project.

(11) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Sun Oil Company, is hereby authorized to institute a waterflood project on its East Millman Pool Unit Area, by the injection of water into the Queen and Grayburg formations through the following-described wells in Township 19 South, Range 28 East, East Millman Pool, NMPM, Eddy County, New Mexico:

<u>WELL NAME</u>	<u>NO.</u>	<u>UNIT LETTER</u>	<u>SEC.</u>
Sun Felzer State	1	E	12
Sun State "O"	1	C	13
Sun State "O"	3	O	12
Sun State "O"	4	M	13
Maralo State 272	3	K	12
Maralo State 272	2	M	12
Kersey Bass	1	I	12
Yates E. Parcel	1	G	13
Yates E. Parcel	4	A	13
Gulf Eddy State AN	2	E	13
Gulf Eddy State AN	3	K	13

(2) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the operator shall immediately notify the Supervisor of the Artesia district office of the Division of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around any plugged and

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abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(4) That the injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 900 psi, provided however, that the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) That the subject waterflood project is hereby designated the Sun East Millman Q-GB Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

(6) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 704 and 1115 of the Division Rules and Regulations.

IT IS FURTHER ORDERED:

(1) That the operator shall consult with the Supervisor of the Artesia district office of the Division and determine what, if any, remedial action must be taken on the following described wells prior to initiation of injection into the Sun East Millman Q-GB Waterflood Project:

Kersey Bass Well No. 1	Unit I, Section 28
Ohio Merchant Well No. 1	Unit N, Section 1
Nix and Curtis R & B State Well No. 2	Unit G, Section 12
Donnelly Kinney State Well No. 1	Unit L, Section 18
Depco State 648 Well No. 181	Unit J, Section 14
J. Yates Campbell-Gwaltney Well No. 1	Unit D, Section 18

all in Township 19 South, Range 28 East, NMPM.

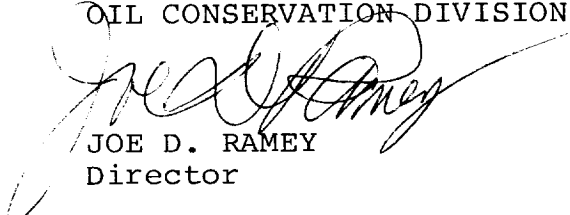
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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DONE at Santa Fe, New Mexico, on the day and year herein-  
above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



JOE D. RAMEY  
Director

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