

**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. 9925  
Order No. R-9184**

**APPLICATION OF SIETE OIL AND  
GAS CORPORATION FOR A WATERFLOOD  
PROJECT, EDDY AND LEA COUNTIES,  
NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on May 2, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 25<sup>th</sup> day of May, 1990, 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, Siete Oil and Gas Corporation, seeks authority to institute a cooperative lease waterflood project in the Shugart Yates-Seven Rivers-Queen-Grayburg Pool by the injection of water into said pool through selected perforated intervals from approximately 3748 feet to 4330 feet in three certain existing wells located on the applicant's Conoco Federal, Inca Federal, Arco Federal and Geronimo Federal leases, located in portions of Sections 18 and 19, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, and Section 24, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) The applicant proposed that the project area consist of the following described leases and areas:

CASE NO. 9925  
Order No. R-9184  
Page -2-

**LEA COUNTY, NEW MEXICO**  
**TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM**

Conoco Federal Lease      Section 18: Lot 4  
Inca Federal Lease      Section 19: NW/4 NW/4

**EDDY COUNTY, NEW MEXICO**  
**TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM**

Geronimo Federal Lease      Section 24: NE/4  
Arco Federal Lease      Section 24: NE/4 NW/4

(4) The wells within the proposed project area are in an advanced state of depletion within the Shugart Yates-Seven Rivers-Queen-Grayburg Pool and should properly be classified as "stripper" wells.

(5) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil within the Shugart Yates-Seven Rivers-Queen-Grayburg Pool, thereby preventing waste.

(6) 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.

(7) Injection into each of the proposed injection wells should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each injection well 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.

(8) The injection wells or system should be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director should 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 migration of waters from the Shugart Yates-Seven Rivers-Queen-Grayburg Pool.

CASE NO. 9925  
 Order No. R-9184  
 Page -3-

(9) 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.

(10) The operator should give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(11) Prior to commencing injection operations, the applicant should be required to obtain any applicable approval from the appropriate agency of the United States Department of the Interior.

(12) The application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Oil Conservation Division Rules and Regulations.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Siete Oil and Gas Corporation, is hereby authorized to institute a cooperative lease waterflood project in the Shugart Yates-Seven Rivers-Queen-Grayburg Pool by the injection of water into said pool through selected perforated intervals from approximately 3748 feet to 4330 feet in the three wells shown on Exhibit "A" attached hereto, located in Section 19, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, and Section 24, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

(2) The project area shall consist of the following described leases and areas:

**LEA COUNTY, NEW MEXICO**  
**TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM**

Conoco Federal Lease  
 Inca Federal Lease

Section 18: Lot 4  
 Section 19: NW/4 NW/4

CASE NO. 9925  
Order No. R-9184  
Page -4-

**EDDY COUNTY, NEW MEXICO**  
**TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM**

**Geronimo Federal Lease      Section 24: NE/4**  
**Arco Federal Lease          Section 24: NE/4 NW/4**

(3) The operator 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.

(4) Injection into the wells shown on Exhibit "A" 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 perforations; the casing-tubing annulus in each injection well shall 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.

(5) The injection wells or system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation (as shown on Exhibit "A"). 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 migration of waters from the Shugart Yates-Seven Rivers-Queen-Grayburg Pool.

(6) Prior to commencing injection operations into the wells shown on Exhibit "A", the casing in each 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.

(7) The operator shall give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(8) The operator shall immediately notify the supervisor of the Division's Artesia district office 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 or around 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) The subject waterflood project is hereby designated the Siete Shugart Cooperative Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

CASE NO. 9925  
Order No. R-9184  
Page -5-

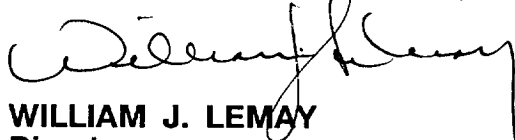
(10) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 704 and 1120 of the Division Rules and Regulations.

(11) Prior to commencing injection operations, the applicant shall be required to obtain any applicable approval from the appropriate agency of the United States Department of the Interior.

(12) 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

S E A L

CASE NO. 9925  
Order No. R-9184  
Page -6-

EXHIBIT "A"  
CASE NO. 9925  
DIVISION ORDER NO. R-9184

<u>WELL NAME AND LOCATION</u>	<u>MAXIMUM SURFACE INJECTION PRESSURE</u>
Geronimo Federal Well No. 2 950' FNL & 2310' FEL, Unit B, Section 24, Township 18 South, Range 31 East, NMPM.	754 PSIG
Geronimo Federal Well No. 7 1750' FNL & 990' FEL, Unit H, Section 24, Township 18 South, Range 31 East, NMPM.	750 PSIG
Inca Federal Well No. 4 760' FNL & 420' FWL, Unit D, Section 19, Township 18 South, Range 32 East, NMPM.	754 PSIG