



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

*ADMINISTRATIVE ORDER NO. WFX-795*

***APPLICATION OF MERIT ENERGY COMPANY TO EXPAND ITS WATERFLOOD  
PROJECT IN THE GRAYBURG-JACKSON (SEVEN RIVERS-QUEEN-GRAYBURG-SAN  
ANDRES) POOL IN EDDY COUNTY, NEW MEXICO***

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-4306, Merit Energy Company has made application to the Division on September 18, 2003 for permission to expand its Friess-Fren Waterflood Project in the Grayburg-Jackson (Seven Rivers-Queen-Grayburg-San Andres) Pool in Eddy County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application was filed in due form.
- (2) Satisfactory information was provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Merit Energy Company, is hereby authorized to inject water into the Seven Rivers formation, Grayburg-Jackson (Seven Rivers-Queen-Grayburg-San Andres Pool, through the gross interval from approximately 1,729 feet to 2,050 feet using 2-3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery to wit:

***Fren Oil Company Well No. 1 (API No. 30-015-05249)***

660' FSL & 1980' FEL (Unit O) Section 19, Township 17 South, Range 31 East

Injection Interval: Open-Hole 1,850 feet to 2,030 feet

Maximum Surface Injection Pressure: 370 psi

***Fren Oil Company Well No. 5 (API No. 30-015-05253)***

660' FSL & 660' FEL (Unit P) Section 19, Township 17 South, Range 31 East

Injection Interval: Perforated & Open-Hole 1,750 feet to 2,023 feet

Maximum Surface Injection Pressure: 350 psi

***Fren Oil Company Well No. 25 (API No. 30-015-29537)***

1880' FSL & 410' FEL (Unit I) Section 19, Township 17 South, Range 31 East

Injection Interval: Perforated 1,729 feet to 2,050 feet

Maximum Surface Injection Pressure: 346 psi

**IT IS FURTHER ORDERED THAT:**

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.

Prior to commencing injection operations into the Fren Oil Company Well No. 25, the applicant shall cement the following-described wells above, across and below the injection interval to assure that these wellbores will not provide an avenue of escape for injected fluid, in a manner that is satisfactory to the supervisor of the Division's Artesia District Office:

Turner "A" No. 36, API No. 30-015-20098, 1800' FNL & 1980' FEL (Unit G) 19-17S-31E  
Fren Oil Co. No. 12, API No. 30-015-05260, 610' FSL & 1980' FEL (Unit O) 19-17S-31E  
Fren Oil Co. No. 13, API No. 30-015-05261, 660' FSL & 710' FEL (Unit P) 19-17S-31E

Prior to commencing injection operations into the Fren Oil Company Well No. 1, the applicant shall cement the following-described wells above, across and below the injection interval to assure that these wellbores will not provide an avenue of escape for injected fluid, in a manner that is satisfactory to the supervisor of the Division's Artesia District Office:

Fren Oil Co. No. 3, API No. 30-015-05251, 1980' FSL & 1980' FWL (Unit K) 19-17S-31E  
Cedar Lake No. 3Y, API No. 30-015-05477, 330' FNL & 751' FWL (Unit D) 30-17S-31E  
Fren Oil Co. No. 2, API No. 30-015-05250, 660' FSL & 1980' FWL (Unit N) 19-17S-31E  
Fren Oil Co. No. 12, API No. 30-015-05260, 610' FSL & 1980' FEL (Unit O) 19-17S-31E  
Fren Oil Co. No. 13, API No. 30-015-05261, 660' FSL & 710' FEL (Unit P) 19-17S-31E

Prior to commencing injection operations into the Fren Oil Company Well No. 5, the applicant shall cement the following-described wells above, across and below the injection interval to assure that these wellbores will not provide an avenue of escape for injected fluid, in a manner that is satisfactory to the supervisor of the Division's Artesia District Office:

Fren Oil Co. No. 2, API No. 30-015-05250, 660' FSL & 1980' FWL (Unit N) 19-17S-31E

Fren Oil Co. No. 12, API No. 30-015-05260, 610' FSL & 1980' FEL (Unit O) 19-17S-31E

Fren Oil Co. No. 13, API No. 30-015-05261, 660' FSL & 710' FEL (Unit P) 19-17S-31E

Max Friess No. 4, API No. 30-015-05471, 1980' FNL & 660' FEL (Unit H) 30-17S-31E

Turner "B" No. 50, API No. 30-015-05437, 660' FNL & 660' FWL (Unit D) 29-17S-31E

**Subsequent to the completion of remedial cement operations on the area of review wells described above, the applicant shall submit documentation to the Santa Fe Office of the Division verifying that this work has been completed. This documentation shall be in the form of a cover letter addressed to the Engineering Bureau complete with all applicable Form C-103's (Sundry Notices). Failure to comply with this directive may result in the cancellation of injection authority.**

Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure to 0.2 psi per foot of depth to the uppermost injection perforations or open-hole interval in each of the wells.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg-Jackson (Seven Rivers-Queen-Grayburg-San Andres) Pool. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time: i) remedial cement operations will be conducted on each of the wells described above; ii) of the installation of injection equipment in each of the injection wells; and iii) of the mechanical integrity tests so that these operations may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-4306 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The injection authority granted herein 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.

DONE at Santa Fe, New Mexico, on this 5th day of January, 2004.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

SEAL

LW/DRC

cc: Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad  
Case File No. 4705