



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

*ADMINISTRATIVE ORDER NO. WFX-824*

***APPLICATION OF STEPHENS & JOHNSON OPERATING COMPANY TO EXPAND ITS  
WATERFLOOD PROJECT IN THE EAST MILLMAN YATES-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-6177, as amended, Stephens & Johnson Operating Company has made application to the Division on October 13, 2006 for permission to expand its East Millman Queen Grayburg Unit Waterflood Project in the East Millman Yates-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, Stephens & Johnson Operating Company, is hereby authorized to inject water into the Queen and Grayburg formations (East Millman Yates-Seven Rivers-Queen-Grayburg-San Andres Pool), through the gross interval from approximately 1,656 feet to 2,234 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:

**East Millman Pool Unit Well No. 2 (API No. 30-015-02238)**

660' FNL & 660' FWL (Unit D) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,656 feet to 2,148 feet  
Maximum Surface Injection Pressure: 331 psi

**East Millman Pool Unit Well No. 4 (API No. 30-015-02239)**

660' FSL & 660' FWL (Unit M) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,784 feet to 2,214 feet  
Maximum Surface Injection Pressure: 357 psi

**East Millman Pool Unit Well No. 6 (API No. 30-015-10105)**

990' FSL & 1980' FWL (Unit N) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 2,115 feet to 2,218 feet  
Maximum Surface Injection Pressure: 423 psi

**East Millman Pool Unit Well No. 1 (API No. 30-015-02219)**

330' FSL & 1980' FWL (Unit N) Section 12, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,776 feet to 2,234 feet  
Maximum Surface Injection Pressure: 355 psi

**East Millman Pool Unit Well No. 2 (API No. 30-015-02220)**

330' FSL & 660' FWL (Unit M) Section 12, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,676 feet to 2,212 feet  
Maximum Surface Injection Pressure: 335 psi

**East Millman Pool Unit Well No. 1 (API No. 30-015-02234)**

1980' FNL & 1980' FWL (Unit F) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,722 feet to 2,123 feet  
Maximum Surface Injection Pressure: 344 psi

**East Millman Pool Unit Well No. 2 (API No. 30-015-02235)**

1980' FNL & 660' FWL (Unit E) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,733 feet to 2,185 feet  
Maximum Surface Injection Pressure: 347 psi

**East Millman Pool Unit Well No. 4 (API No. 30-015-02231)**

2310' FSL & 660' FWL (Unit L) Section 13, Township 19 South, Range 28 East, NMPM  
Perforated Interval: 1,734 feet to 2,200 feet  
Maximum Surface Injection Pressure: 347 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 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 Queen-Grayburg formation. 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) of the installation of injection equipment in each of the injection wells; and ii) 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-6177 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 2nd day of November, 2006.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
MARK E. FESMIRE, P.E.  
Division Director

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DRC

cc: Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad  
Case File No. 6477