



# 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. PMX-228*

***APPLICATION OF CONOCOPHILLIPS TO EXPAND ITS PRESSURE MAINTENANCE  
PROJECT IN THE VACUUM GRAYBURG-SAN ANDRES POOL IN LEA COUNTY, NEW  
MEXICO***

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Orders No. R-5897 and R-6856, as amended, ConocoPhillips has made application to the Division on January 24, 2005 for authorization to expand its East Vacuum Grayburg-San Andres Unit Pressure Maintenance Project in the Vacuum Grayburg-San Andres Pool in Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been filed in due form.
- (2) Satisfactory information has been 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 East Vacuum Grayburg-San Andres Unit Pressure Maintenance Project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

**IT IS THEREFORE ORDERED THAT:**

The applicant, ConocoPhillips, is hereby authorized to alternately inject water and CO<sub>2</sub> into the San Andres formation at approximately 4,148 feet to approximately 4,660 feet through 2 7/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost open-hole injection

interval in the following described wells for purposes of pressure maintenance to wit:

**East Vacuum Grayburg San Andres Unit Well No. 2819-002**

API No.30-025-02921

**1980' FNL & 660' FEL, Unit H,**

Injection Interval: 4,249' - 4,640'

Maximum Injection Pressure: 1350 psi – water / 1850 psi – CO<sub>2</sub>

**East Vacuum Grayburg San Andres Unit Well No. 2801-009**

API No.30-025-02910

**660' FSL & 1992' FWL, Unit N,**

Injection Interval: 4,148' - 4,660'

Maximum Injection Pressure: 1350 psi – water / 1850 psi – CO<sub>2</sub>

**East Vacuum Grayburg San Andres Unit Well No. 2801-011**

API No.30-025-02912

**1980' FSL & 1980' FEL, Unit J,**

Injection Interval: 4,152' - 4,636'

Maximum Injection Pressure: 1350 psi – water / 1850 psi – CO<sub>2</sub>

All in Section 28, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected fluid 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.

Prior to commencing injection operations into the EVGSAU Well No. 2801-009, the applicant shall perform remedial cement operations on the Vacuum Glorieta East Unit Well No. 7 (API No. 30-025-30805) located 430 feet from the South line and 330 feet from the West line (Unit M) of Section 28, Township 17 South, Range 35 East, NMPM, such that cement shall be placed within the production casing annulus above and across the proposed injection interval. The current cement top on the 5 ½-inch production casing is shown to be at a depth of 4,300 feet.

Prior to commencing remedial cement operations on the Vacuum Glorieta East Unit Well No. 7, the applicant shall consult with the supervisor of the Hobbs district office of the Division in order to obtain an approved procedure.

**Subsequent to the completion of remedial cement operations on the Vacuum Glorieta East Unit Well No. 7, the applicant shall submit to the Santa Fe office of the Division, attention Engineering Bureau, documentation to show that the required work has been completed. Failure to notify the Santa Fe office of the Division of the completion on this work may result in the termination of the injection authority for the EVGSAU Well No. 2801-009.**

The casing-tubing annulus in each well 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 wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than 1350 psi while on water injection and no more than 1850 psi while on CO<sub>2</sub> injection.

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 San Andres 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 Hobbs district office of the Division of the date and time of: i) the installation of injection equipment; ii) the mechanical integrity pressure tests; and iii) the remedial cement operations on the Vacuum Glorieta East Unit Well No. 7 in order that these operations may be witnessed.

The operator shall immediately notify the supervisor of the Hobbs 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 Nos. R-5897 and R-6856, as amended, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

**PROVIDED FURTHER THAT,** jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, 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 8th day of February, 2005.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, reading "Mark E. Fesmire, P.E.", followed by a horizontal line.

MARK E. FESMIRE, P.E.  
Division Director

SEAL

MEF/drc

cc: Oil Conservation Division - Hobbs