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-822*

***APPLICATION OF CHEVRON USA, INC. TO EXPAND ITS ENHANCED OIL TERTIARY RECOVERY 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 Order No. R-5530, as amended, Chevron USA, Inc. has made application to the Division on September 11, 2006 for authorization to expand its Central Vacuum Unit Enhanced Oil Tertiary Recovery Project in the Vacuum Grayburg-San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

(1) The application was filed in due form.

(2) Satisfactory information was provided to demonstrate that all offset operators and surface owner have been provided notice of the application.

(3) No objection has been received within the waiting period as prescribed by Rule 701(C).

(4) The proposed injection well is eligible for conversion to injection under the terms of Rule 701.

(5) The proposed expansion of the above-referenced enhanced oil tertiary recovery project will not cause waste nor impair correlative rights.

(6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Chevron USA, Inc., is hereby authorized to inject water, $CO_2$ and produced gas into the Grayburg-San Andres formation, Vacuum Grayburg-San Andres Pool, through selected perforations within the unitized interval from 4,030 feet to 4,923 feet using 2-7/8-inch fiberglass-lined

tubing set in a packer located within 100 feet of the uppermost injection perforations in the following-described well for purposes of tertiary recovery to wit:

**Central Vacuum Unit Well No. 342 (API No. 30-025-38002)**
82' FNL & 1186' FEL (Unit A) Section 36, Township 17 South, Range 34 East;
Injection Interval: Selective Perforations within the Unitized Interval
Maximum Surface Injection Pressure: Water-1,450 psi
$CO_2$ & produced gas-1,800 psi

IT IS FURTHER ORDERED THAT:

**Prior to commencing injection operations into the Central Vacuum Unit Well No. 342, the applicant shall run a cement bond log on the State "BA" Well No. 15 (API No. 30-025-34945) located 612 feet from the North line and 2135 feet from the West line (Unit C) of Section 36, Township 17 South, Range 34 East, NMPM, in order to determine the cement top behind the 5.5-inch production casing. In the event that the current cement top does not extend below, across and above the proposed injection interval, the applicant shall perform a remedial cement squeeze on the well in order to raise the cement top. All work on the well shall be pre-approved by the supervisor of the Hobbs District Office of the Division (Hobbs OCD), and the applicant shall provide notice to the Hobbs OCD when the work is to be performed in order that these operations may be witnessed.**

**In order to obtain final authorization to commence injection into the Central Vacuum Unit Well No. 342, the applicant shall forward to the Engineering Bureau, Santa Fe Office of the Division, either:**

1) **a copy of the cement bond log run on the State "BA" Well No. 15 showing adequate cement coverage; or**
2) **a Form C-102 Sundry Notice that details all remedial cement operations conducted on the State "BA" Well No. 15.**

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 well, 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 pressurization system shall be equipped with a pressure limiting device that will limit the wellhead injection pressure to 1,450 psi for water and 1800 psi for $CO_2$ & produced gas.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Vacuum 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 Hobbs OCD of the date and time of the installation of injection equipment in the injection well and of the mechanical integrity test so that these operations may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs OCD of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-5530, as amended, 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 well, 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 10th day of October, 2006.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.
Director

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MEF/drc

cc: Oil Conservation Division – Hobbs