



# 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-716-A

## **APPLICATION OF APACHE CORPORATION TO EXPAND ITS WATERFLOOD PROJECT IN THE GRAYBURG-JACKSON-YESO POOL IN LEA COUNTY, NEW MEXICO.**

### ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No R-9596, Apache Corporation has made application to the Division on August 21, 2007 for permission to expand its North Monument Grayburg San Andres Unit Waterflood Project in the Eunice Monument-Grayburg San Andres Pool (23000) 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 affected parties were provided notice of the application.
- (3) No objections have been filed within the waiting period prescribed by Division 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 waterflood project will prevent waste and will not impair correlative rights and the application should be approved.
- (6) The proposed well was approved for conversion to injection along with seven other wells with Administrative Order No WFX-716 on July 11, 1997, but the operator did not utilize any of the wells as injectors and therefore Order No WFX-716 expired. This application is identical to the previous one, but Apache is only asking at this time for one well to be converted.

#### IT IS THEREFORE ORDERED THAT:

The applicant, Apache Corporation, is hereby authorized to inject water into the Grayburg and San Andres formations, Eunice Monument-Grayburg San Andres Pool, through plastic-lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following-described well for purposes of secondary recovery to wit:

**North Monument Grayburg San Andres Unit Well No. 507 (API No. 30-025-05644)**

1980' FNL & 1980' FEL, Unit G, Section 19, T-19 South, R-37 East, NMPM

Injection Interval: 3762' to 3900' Open Hole Tubing: 2 7/8-inch p.c.

Packer Depth: 3700 feet; Maximum Surface Injection Pressure: 752 PSIG

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 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 system shall be equipped with a pressure limiting device which will limit the wellhead pressure to the maximum surface injection pressures described above.

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 permitted injection 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 the: i) installation of injection equipment; ii) squeeze cementing operations; and iii) mechanical integrity tests so that the same may be inspected and 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 well shall be governed by all provisions of Division Order No. R-9596, 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 September 6, 2007

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
Director

cc: Oil Conservation Division – Hobbs