



# 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-227*

***APPLICATION OF ARENA RESOURCES, INC. TO EXPAND ITS PRESSURE  
MAINTENANCE PROJECT IN THE EAST HOBBS-SAN ANDRES POOL IN LEA  
COUNTY, NEW MEXICO***

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-11980-A, Arena Resources, Inc. has made application to the Division on December 13, 2004 for authorization to expand its East Hobbs San Andres Unit Pressure Maintenance Project in the East Hobbs-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 pressure maintenance project will not cause waste nor impair correlative rights.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Arena Resources, Inc., is hereby authorized to inject water into the San Andres formation through the gross interval from approximately 4,400 feet to 4,650 feet through 2 3/8-inch plastic-lined tubing installed in a packer located within 100 feet of the uppermost injection perforations or open hole interval in the wells shown on Exhibit "A" attached to this order for the purpose of pressure maintenance.

**IT IS FURTHER ORDERED THAT:**

**To prepare the East Hobbs San Andres Unit Well No. 021 for injection, the well shall be deepened to a depth of 4,650 feet, 4 ½-inch casing shall be run and cemented from 4,650 feet to surface, and the 4 ½-inch casing shall be perforated in the P2-P3-P4 interval of the San Andres formation.**

**To prepare the East Hobbs San Andres Unit Well No. 091 for injection, the well shall be deepened to a depth of 4,650 feet, 4 ½-inch casing shall be run and cemented from 4,650 feet to surface, and the 4 ½-inch casing shall be perforated in the P2-P3-P4 interval of the San Andres formation.**

**To prepare the East Hobbs San Andres Unit Well No. 111 for injection, the existing open-hole interval in the well shall be plugged back from a depth of 4,698 feet to 4,650 feet.**

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 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 .2 psi per foot to the uppermost injection perforation or open-hole interval, or 890 psi, whichever is less.

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; i) remedial operations will be conducted on the East Hobbs San Andres Unit Wells No. 021, 091 and 111; ii) of the installation of injection equipment; and iii) of the mechanical integrity pressure 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 wells shall be governed by all provisions of Division Order No. R-11980-A 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 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 20th day of January, 2005.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
Director

S E A L

MEF/drc

cc: Oil Conservation Division - Hobbs  
Case File No. 13041

Exhibit "A"

Division Order No. PMX-227

East Hobbs San Andres Unit Pressure Maintenance Project

Approved Injection Wells

<i>Well Name &amp; Number</i>	<i>API Number</i>	<i>Well Location</i>	<i>Injection Interval</i>	<i>Packer Depth</i>	<i>Maximum Surface Injection Pressure</i>
East Hobbs SA Unit No. 011	30-025-07943	660' FSL & 2103' FWL, Unit N, Section 29, T-18S, R-39E	4,528'-4,613'	4490'	890 PSIG
East Hobbs SA Unit No. 021	30-025-07954	1983' FNL & 661' FEL, Unit H, Section 30, T-18S, R-39E	TBD	TBD	890 PSIG
East Hobbs SA Unit No. 091	30-025-07960	330' FNL & 2310' FEL, Unit B, Section 31, T-18S, R-39E	TBD	TBD	890 PSIG
East Hobbs SA Unit No. 111	30-025-07948	1650' FSL & 990' FWL, Unit L, Section 30, T-18S, R-39E	4,449'-4,650'	4,410'	890 PSIG
East Hobbs SA Unit No. 126	30-025-34610	1650' FSL & 2310' FWL, Unit K, Section 30, T-18S, R-39E	4,450'-4,614'	4,485'	890 PSIG