

# 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 SWD-1064-A

## **APPLICATION OF BEPCO, L.P. FOR PRODUCED WATER DISPOSAL, EDDY COUNTY, NEW MEXICO**

### **ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION**

**NOV 07 2007**

**OCD-ARTESIA**

Under the provisions of Rule 701(B), BEPCO, L.P. made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico.

#### **THE DIVISION DIRECTOR FINDS THAT:**

(1) This well was approved for injection into the Delaware from 4930 feet to 7347 feet on December, 11, 2006. At that time, the applicant presented a statement from a reservoir engineer that injection into this interval would not harm offset production in the Delaware and in fact may benefit such production.

(2) The applicant is requesting an amendment to the original permit, due to the fact that the upper permitted injection interval was watering out a nearby horizontal well operated by the applicant through a fracture or high permeability zone. The offending upper perforations have been cement squeezed but the wellbore mechanical integrity has been compromised.

(3) There is only one well penetrating this injection depth and located within the ½ mile area of review of the proposed injection well. The applicant is the operator of that well.

(4) Due to the fact that waste of oil may occur if injection is allowed into the upper portion of the previously permitted interval, this amendment reduces the permitted injection interval, and allows the use of two isolation packers to ensure isolation of upper perforations (5450 to 6640) that were cement squeezed but still will not maintain mechanical integrity.

(5) The maximum allowable surface injection pressure also is increased, since the Division uses a 0.2 psi per foot gradient and the depth to the top injection perforation has

increased.

IT IS THEREFORE ORDERED THAT:

The applicant is hereby authorized to utilize its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group through perforations from 6968 feet to 7347 feet and through plastic-lined tubing set with two packers, the first packer located approximately 5400 feet and the second packer located approximately 6853 feet.

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.

After installing injection tubing, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

The wellhead injection pressure on the well shall be limited to **no more than 1394 psi**. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

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 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 Artesia district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same 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 well and shall take such steps as may be timely and necessary to correct such failure or leakage.

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

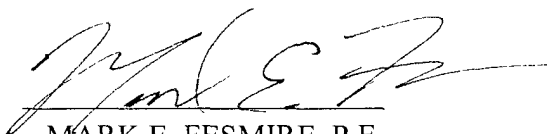
correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall provide written notice of the date of commencement of injection to the Artesia district office of the Division.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

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.

Approved at Santa Fe, New Mexico, on October 24, 2007.

  
MARK E. FESMIRE, P.E.  
Director

MEF/wvj

cc: Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad