

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-1060

APPLICATION OF SAMSON RESOURCES COMPANY FOR PRODUCED WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Samson Resources Company made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Anaconda 11 Federal Well No. 2 (API No. 30-025-34934) located 1650 feet from the North line and 1650 feet from the West line of Section 11, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant is hereby authorized to utilize its Anaconda 11 Federal Well No. 2 (API No. 30-025-34934) located 1650 feet from the North line and 1650 feet from the West line of Section 11, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group from 5250 feet to 6200 feet with initial perforations from 5722 feet to 6030 feet and through plastic-lined tubing set in a packer located within 100 feet of the top of the perforated injection interval.

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 any injection, the following shall be done to the permitted injection well:

(a) this well shall be re-entered and drilled out to below the intended injection interval and a cement bond log shall be run and supplied to the Division. If cement does not cover the permitted injection interval top (at 5250 feet), then remedial cementing must be done prior to any further work. If the well is squeezed, a new cement bond log shall be run and supplied to the Division.

(b) the well shall be tested for mechanical integrity and additional casing installed and cemented if necessary in order to achieve adequate mechanical integrity;

(c) the well shall be plugged back to within 200 feet of the bottom of the permitted injection interval (which is 6200 feet);

Prior to injection into the permitted well, the following work shall be done to one well within the area of review:

The Smith Ranch Federal Well No. 1 30-025-26810 has an open annulus from 8300 feet to 5062 feet. Cement shall be squeezed such that cement covers the top and bottom of the equivalent permitted injection interval from 5250 feet to 6200 feet.

The operator shall not inject into the Anaconda 11 Federal Well No. 2 until written confirmation is received from the engineering bureau in Santa Fe that the required work is completed.

After installing injection tubing, 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 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 0.2 times the depth of the top perforation (initially 1144 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 Hobbs 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 Hobbs 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 Hobbs 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 November 28, 2006.


MARK E. FESMIRE, P.E.
Director

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cc: Oil Conservation Division – Hobbs
Bureau of Land Management – Carlsbad