

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**Case No. 10985
Order No. R-10161**

**APPLICATION OF BURK ROYALTY COMPANY
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 7, 1994, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 4th day of August, 1994, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Burk Royalty Company, seeks authority to institute a waterflood project on its Hanson "C" Federal Lease comprising the S/2 SW/4 and NE/4 SW/4 of Section 23, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, by the injection of water into the Yates formation, Lynch Yates-Seven Rivers Pool, through the perforated interval from approximately 3,564 feet to 3,585 feet in its Hanson "C" Well No. 4 located 1650 feet from the South and West lines (Unit K) of Section 23.
- (3) The applicant proposes to use as producing wells within the waterflood project the Hanson "C" Well Nos. 1 and 3 located respectively in Units M and N.
- (4) The Hanson "C" Well Nos. 1 and 3 are in an advanced state of depletion and should therefore be properly classified as "stripper wells".

(5) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) Testimony presented and Division records indicate that the Hanson "C" Well No. 4 was permitted for injection as a disposal well by Division Order No. R-3661 on January 13, 1969. The permitted injection interval was in the Yates formation at a depth of 3,564 feet to 3,570 feet.

(7) Division Order No. R-3661 should be superseded by this order.

(8) The injection of water into the proposed injection well should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set at approximately 3,450 feet; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(9) Prior to commencing injection operations into the Hanson "C" Well No. 4, the casing should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(10) The injection well or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 713 psi.

(11) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(12) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(13) The proposed waterflood project should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(14) The injection authority granted herein for the proposed injection well should 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.

IT IS THEREFORE ORDERED THAT:

(1) The application of Burk Royalty Company for authority to institute a waterflood project on its Hanson "C" Federal Lease comprising the S/2 SW/4 and NE/4 SW/4 of Section 23, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, by the injection of water into the Yates formation, Lynch Yates-Seven Rivers Pool, through the perforated interval from approximately 3,564 feet to 3,585 feet in its Hanson "C" Well No. 4 located 1650 feet from the South and West lines (Unit K) of Section 23, is hereby approved.

(2) The applicant 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 from injection, production, or plugged and abandoned wells.

(3) Injection into the Hanson "C" Well No. 4 shall be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 3,450 feet; the casing-tubing annulus shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(4) The injection well or pressurization system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 713 psi.

(5) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(6) Prior to commencing injection operations, the casing in the Hanson "C" Well No. 4 shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(7) The operator shall give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(8) The applicant shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in the injection well, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such steps as may be timely and necessary to correct such failure or leakage.

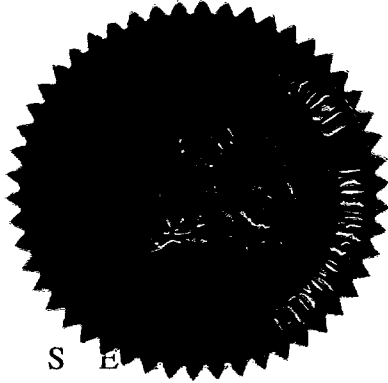
(9) The subject waterflood project is hereby designated the Hanson Yates Waterflood Project, and the applicant shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(10) The injection authority granted herein for the proposed injection well 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.

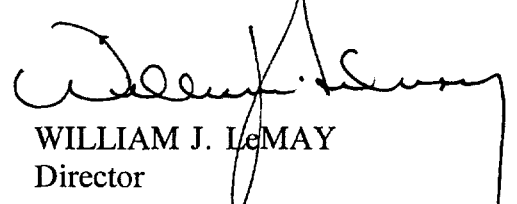
(11) Division Order No. R-3661 is hereby superseded by this order.

(12) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LeMAY
Director