

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

ORDER NO. WFX-581-A

APPLICATION OF ENERGEN RESOURCES CORPORATION TO EXPAND
WATERFLOOD PROJECT IN THE LANGLIE MATTIX SEVEN RIVERS QUEEN
GRAYBURG POOL IN LEA COUNTY, NEW MEXICO.

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-4417, Energen Resources Corporation ("Energen") has made administrative application to the Division on April 14, 2000 for permission to expand its Langlie-Lynn Queen Unit Waterflood Project in the Langlie Mattix Seven Rivers Queen Grayburg Pool in Lea County, New Mexico, pursuant to its existing authority under Order No. R-4417 issued on October 10, 1972 and as subsequently amended by, *inter alia*, Injection Permit No. WFX-581 issued on May 16, 1989.

NOW, on this _____ day of August, 2001, 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) Following notice and advertisement as required by law, an objection was received from Lanexco, Inc. on March 23, 2000. Lanexco is the operator of the El Paso State Well No. 1 located 1880' FSL & 1650' FEL of Section 22, T-23-S, R-36-E, NMPM. Lanexco's stated an objection to the utilization of the Langlie Lynn Queen Unit Well No. 23 (1863' FSL & 1950' FEL of Section 22, Unit J, T-23-S, R-36-E), Langlie Lynn Queen Unit Well No. 9 (660' FSL & 330' FEL of Section 22, Unit P, T-23-S, R-36-E), and Langlie Lynn Queen Unit Well No. 3 (1980' FSL & 660' FWL of Section 23, Unit L, T-23-S, R-36-E), each of which are located within one-half mile of the El Paso State Well No. 1. No other objection has been received.
- (4) Previously, on April 20, 2000, Energen verified to the Division that the Langlie Lynn Queen Unit Well No. 23 was not included in the Application filed in this matter. Subsequently, on December 6, 2000, Energen advised the Division that it was deleting the Langlie Lynn Queen Unit Wells No. 9 and No. 3 from its April 14, 2000 Application. As a consequence of the elimination of those two wells, Lanexco's El Paso State Well No. 1 was outside the one-half mile area of review set forth in Division Rule 701.

(5) In view of the Lanexco objection, and after notice and advertisement, Energen's Application was set for hearing before Division Examiner Michael Stogner on March 8, 2001. Energen appeared at the hearing through its counsel. No other party entered an appearance or otherwise objected to Energen's Application at the hearing and the matter was accordingly taken under advisement. The matter was subsequently referred for consideration under the administrative approval process set forth in Rule 701 of the Division's Rules.

(6) The proposed injection wells are eligible for conversion to water injection under the terms of Rule 701.

(7) The proposed expansion of the above-referenced waterflood project will not cause waste or impair correlative rights.

(8) The application should be approved.

IT IS THEREFORE ORDERED THAT:

Order No. WFX-581 is amended as follows:

(1) The Applicant, Energen Resources Corporation, is authorized to inject water into the Seven Rivers and Queen formations through 2 3/8ths inch J-55 Internal Plastic Coated tubing set in packers into each of the wells and at the injection intervals described below:

Langlie Lynn Queen Unit Well No. 5
1980 FSL & 1980 FEL (Unit J)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3494' to 3631'

Langlie Lynn Queen Unit Well No. 7
660 FSL & 1980 FWL (Unit N)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3510' to 3682'

Langlie Lynn Queen Unit Well No. 14
660 FNL & 1980 FEL (Unit B)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3408' to 3586'

Langlie Lynn Queen Unit Well No. 12
660 FNL & 1980 FEL (Unit D)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3446' to 3682'

Langlie Lynn Queen Unit Well No. 16
1980 FNL & 1980 FWL (Unit F)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3468' to 3653'

Langlie Lynn Queen Unit Well No. 18
1980 FSL & 1980 FWL (Unit L)
Section 23, T-23-S, R-36-E, NMPM
Lea County, New Mexico
Injection Interval: 3540' to 3681'

IT IS FURTHER ORDERED THAT:

(2) 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.

(3) 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.

(4) 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.

(5) The injection well or system shall be equipped with a pressure limiting device which will permit the wellhead pressure on the injection well to no more than 690 psi.

(6) 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 Seven Rivers & Queen formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

(7) 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 the mechanical integrity test so that the same may be inspected and witnessed.

(8) 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.

(9) The subject well shall be governed by all provisions of Division Order No. R-4417 and rules 702-706 of the Division Rules and Regulations not inconsistent herewith. The operator shall submit monthly reports of the injection operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

(10) The injection authority granted herein for each well 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, on written request by the operator, may grant an extension thereof for good cause shown.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirement set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

Approved at Santa Fe, New Mexico, on this __ day of August, 2001.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

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