



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

ADMINISTRATIVE ORDER NO. WFX-734

**APPLICATION OF DEVON ENERGY CORPORATION (NEVADA) TO EXPAND ITS
WATERFLOOD PROJECT IN THE SHUGART-YATES-SEVEN RIVERS-QUEEN-
GRAYBURG POOL IN EDDY COUNTY, NEW MEXICO**

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order Nos. R-3059 and R-3769, Devon Energy Corporation (Nevada) has made application to the Division on November 7, 1997 for permission to expand its East Shugart Unit Waterflood Project in the Shugart-Yates-Seven Rivers-Queen-Grayburg Pool in Eddy 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 East Shugart Unit Waterflood Project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Devon Energy Corporation (Nevada), be and the same is hereby authorized to inject water into the Queen formation at approximately 3300 feet to approximately 3950 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the following described wells for purposes of secondary recovery to wit:

East Shugart Unit Well No.75
990' FNL & 330' FEL, UL 'A', Section 35
Injection Interval: 3550 feet to 3950 feet
Maximum Injection Pressure: (.42/ft) 1491 psig

East Shugart Unit Well No.83
1100' FSL & 170' FEL, UL 'P', Section 34
Injection Interval: 3300 feet to 3900 feet
Maximum Injection Pressure: (.49/ft) 1617 psig

East Shugart Unit Well No.86
330' FSL & 780' FEL, UL 'P', Section 34
Injection Interval: 3300 feet to 3850 feet
Maximum Injection Pressure: (.49/ft) 1617 psig

All in Township 18 South, Range 31 East, Eddy County, New Mexico.

IT IS FURTHER ORDERED THAT:

Prior to commencing injection into the East Shugart Unit Well No.75, the operator shall either provide evidence that the top of cement on the 5 ½ inch casing string in the East Shugart Unit Well No.9 is above approximately 3000 feet, or, the operator shall perform cement squeeze operations on this well to obtain such results.

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 between .42 and .49 psi per foot of depth to the uppermost injection perforation.

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 Queen 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 injection equipment and of the mechanical integrity tests 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 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 Nos. R-3059 and R-3769, as amended 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 subject wells, 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 9th day of March, 1998.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


LORI WROTENBERY
Director

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Devon Energy Corporation (Nevada)

March 9, 1998

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cc: Oil Conservation Division – Artesia
Case File No.3391