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-699

APPLICATION OF DEVON ENERGY CORPORATION TO EXPAND ITS WATERFLOOD PROJECT IN THE GRAYBURG JACKSON POOL IN EDDY COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-2268 as amended, Devon Energy Corporation has made application to the Division on October 22, 1996 for permission to expand its Keel-West Unit Waterflood Project in the Grayburg Jackson 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 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, be and the same is hereby authorized to inject water into the Grayburg and San Andres formations at approximately 2600 feet to approximately 3650 feet through 2 3/8-inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells described on Exhibit "A" attached hereto, for purposes of secondary recovery.

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 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 well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to between .35 and .5 psi per foot of depth to the uppermost injection perforations as determined from previously submitted step-rate test data.

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 Grayburg or San Andres formations. 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 No. R-2268, as amended and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

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 requirements set forth in this order, 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 December, 1996.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

by Deputy Director

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Artesia
Case File No.9929

EXHIBIT "A"
DIVISION ORDER NO. WFX-699
KEEL-WEST UNIT WATERFLOOD PROJECT
APPROVED INJECTION WELLS

Well Name	*Well No.*	*Location*	*Unit*	*S-T-R*	*Injection Interval*	*Packer Depth*	*Tubing Size*	*Injection Pressure*
Fren Oil Company	13	660' FSL & 710' FEL	P	19-17S-31E	2750'-3437'	2700'	2 3/8"	1375 PSIG
Fren Oil Company	25	1980' FSL & 460' FEL	I	19-17S-31E	2650'-3580'	2600'	2 3/8"	1325 PSIG
Friess Federal	1	2310' FSL & 1650' FEL	J	19-17S-31E	2650'-3439'	2600'	2 3/8"	1325 PSIG
Max Friess	2	660' FNL & 660' FEL	A	30-17S-31E	2750'-3282'	2700'	2 3/8"	963 PSIG
Max Friess	4	1980' FNL & 660' FEL	H	30-17S-31E	2850'-3550'	2800'	2 3/8"	998 PSIG
Turner 'B'	6	330' FNL & 1980' FEL	B	20-17S-31E	2600'-3425'	2550'	2 3/8"	1300 PSIG
Turner 'B'	8	660' FNL & 1980' FEL	B	20-17S-31E	2650'-3434'	2600'	2 3/8"	910 PSIG
Turner 'B'	42	1650' FNL & 330' FWL	E	20-17S-31E	2600'-3405'	2550'	2 3/8"	1300 PSIG
Turner 'B'	43	660' FSL & 560' FEL	M	20-17S-31E	2700'-3282'	2650'	2 3/8"	1350 PSIG
Turner 'B'	48	560' FNL & 1980' FWL	C	29-17S-31E	2850'-3431'	2800'	2 3/8"	998 PSIG
Turner 'B'	49	1980' FNL & 1980' FEL	G	29-17S-31E	3000'-3600'	2950'	2 3/8"	1050 PSIG
Turner 'B'	52	1980' FNL & 660' FEL	H	29-17S-31E	2900'-3451'	2850'	2 3/8"	1015 PSIG
Turner 'B'	53	1980' FSL & 660' FEL	I	29-17S-31E	2950'-3650'	2900'	2 3/8"	1033 PSIG
Turner 'B'	60	1980' FSL & 1980' FWL	K	29-17S-31E	3050'-3632'	3000'	2 3/8"	1068 PSIG
Turner 'B'	79	2050' FSL & 1980' FWL	K	20-17S-31E	2700'-3530'	2650'	2 3/8"	1350 PSIG
Turner 'B'	130	1350' FSL & 1900' FEL	J	20-17S-31E	2600'-3405'	2750'	2 3/8"	910 PSIG
Turner 'B'	131	1780' FNL & 1980' FEL	G	20-17S-31E	2650'-3440'	2600'	2 3/8"	928 PSIG

All wells in Eddy County, New Mexico