



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 6, 1997

Department of Taxation and Revenue
P.O. Box 630
Santa Fe, NM 87509-0630

Attention: John Chavez, Secretary

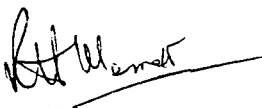
RE: *Expansion of EOR Project*
SDX Resources, Inc.
State '7' Leasehold Waterflood Project

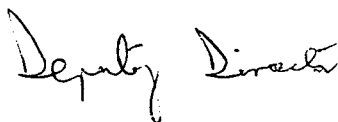
Dear Secretary Chavez:

Enclosed is a copy of Administrative Order WFX-704 issued to SDX Resources, Inc. for its State '7' Leasehold Waterflood EOR project, certified by this Division on August 1, 1996, to be a qualified Enhanced Oil Recovery Project as provided in Laws of 1992, Chapter 38.

Only oil production from that portion of the lands identified in the certification dated August 7, 1996 which is actually developed for enhanced recovery will be eligible for the reduced tax rate. At the time positive production response is certified, we will identify for you the specific lands and wells within the project which qualify for the *Recovered Oil Tax Rate*.

Sincerely,

by 
William J. LeMay
Director


Deputy Director

WJL/BES

Enclosures

cc: File EOR -29



ADMINISTRATIVE ORDER NO. WFX-704

***APPLICATION OF SDX RESOURCES, INC. TO EXPAND ITS WATERFLOOD PROJECT
IN THE EAST MILLMAN QUEEN-GRAYBURG-SAN ANDRES POOL IN EDDY COUNTY,
NEW MEXICO***

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order No. R-10589, SWD Resources, Inc. has made application to the Division on January 9, 1997 for permission to expand its State '7' Leasehold Waterflood Project in the East Millman Queen-Grayburg-San Andres 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 well is eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced State '7' Leasehold Waterflood Waterflood Project will not cause waste nor impair correlative rights.
- (6) The subject waterflood project is an approved Enhanced Oil Recovery Project which qualified for applicable tax credits under the Recovered Oil Tax Rate as provided in Laws of 1992, Chapter 38.
- (6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, SDX Resources, Inc., be and the same is hereby authorized to inject water into the Queen and Grayburg formations at approximately 2100 feet to approximately 2210 feet through 2 3/8-inch plastic lined tubing set in a packer at approximately 1900 feet in the following described well for purposes of secondary recovery to wit:

Conoco '7' State Well No.12 (API No.30-015-25160)
Section 7, Township 19 South, Range 29 East

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 well, 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 well to no more than 420 psi.

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 Queen and Grayburg 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 well and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject well shall be governed by all provisions of Division Order No. R-10589, 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.

Administrative Order WFX-704

SDX Resources, Inc.

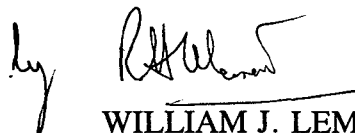
February 6, 1997

Page 3

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.

DONE at Santa Fe, New Mexico, on this 6th day of February, 1997.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

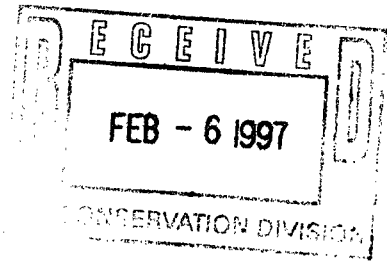
by  Deputy Director
WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Artesia
Taxation and Revenue Dept. - Mr. John Chavez, Secretary
File EOR-29

SDX RESOURCES, INC.

P.O. BOX 5061
MIDLAND, TEXAS 79704
(915) 685-1761



February 3, 1997

New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Attention: Bill Lemay/Ben Stone

Gentlemen:

SDX Resources, Inc. has commenced injection on the Conoco 7 State Waterflood Project. The Conoco 7 State #5 was converted into an injector and injection commenced on January 31, 1997.

Yours truly,

A handwritten signature in cursive script that reads "Chuck Morgan".

Chuck Morgan

CM/jdc



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

August 7, 1996

Department of Taxation and Revenue
P.O. Box 630
Santa Fe, NM 87509-0630

Attention: John Chavez, Secretary

**RE: *Certification of EOR Project
SDX Properties, Inc.
State '7' Leasehold Waterflood Project***

Dear Secretary Chavez:

Enclosed is a copy of the certification issued to SDX Properties, Inc. for its State '7' Leasehold Waterflood EOR project, certified by this Division on August 1, 1996, to be a qualified Enhanced Oil Recovery Project. If the operator applies for certification of positive production response within five years from that date, this project will be eligible for the *Recovered Oil Tax Rate* as provided in Laws of 1992, Chapter 38.

Only oil production from that portion of the lands identified in the certification which is actually developed for enhanced recovery will be eligible for the reduced tax rate. At the time positive production response is certified, we will identify for you the specific lands and wells within the project which qualify for the *Recovered Oil Tax Rate*.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. LeMay", written over a horizontal line.

William J. LeMay
Director

WJL/BES

Enclosures



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

August 7, 1996

SDX Properties, Inc.
P.O. Box 5061
Midland, Texas 79701-5061

Attention: Mr. Chuck Morgan

**CERTIFICATION OF ENHANCED OIL RECOVERY PROJECT
FOR RECOVERED OIL TAX RATE**

The New Mexico Oil Conservation Division hereby certifies that the following Enhanced Oil Recovery Project has been approved by the Division as a secondary project, pursuant to the provisions of the *New Mexico Enhanced Oil Recovery Act* (Laws of 1992, Chapter 38). In order to qualify for the *Recovered Oil Tax Rate*, you must apply for certification of positive production response within five years from the date of this certification. Only production from that portion of the project area identified herein which is actually developed for enhanced recovery will qualify for the reduced tax rate.

If operation of this project is terminated for any reason, the operator of the project must notify this Division and the Secretary of the Taxation and Revenue Department not later than the thirtieth day after termination.

NAME OF PROJECT:	State '7' Leasehold Waterflood Project
OCD ORDER NO.	R-10589
OPERATOR:	SDX Properties, Inc. Attn: Mr. Chuck Morgan
ADDRESS:	P.O. Box 5061 Midland, Texas 79701-5061
CERTIFICATION DATE:	August 1, 1996

PROJECT AREA

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

All of Section 7

PROJECT PRODUCING WELLS ELIGIBLE FOR CREDIT

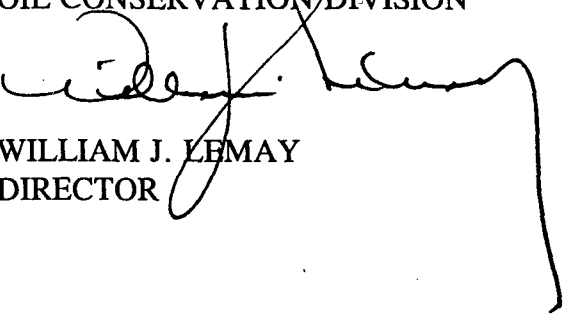
CONOCO STATE '7'

- 1) Well No.2 - 1980 FSL & 541 FWL, Unit Letter 'L'
- 2) Well No.3 - 1980 FNL & 542 FWL, Unit Letter 'E' *
- 3) Well No.4 - 660 FNL & 540 FWL, Unit Letter 'D'
- 4) Well No.5 - 2180 FNL & 1740 FWL, Unit Letter 'F' *
- 5) Well No.6 - 660 FNL & 1740 FWL, Unit Letter 'C' *
- 6) Well No.7 - 1980 FNL & 1980 FEL, Unit Letter 'G' *
- 7) Well No.8 - 660 FNL & 1880 FEL, Unit Letter 'B'
- 8) Well No.9 - 660 FNL & 660 FEL, Unit Letter 'A'
- 9) Well No.11 - 1980 FNL & 560 FEL, Unit Letter 'H'
- 10) Well No.12 - 1880 FSL & 1980 FWL, Unit Letter 'K'
- 11) Well No.13 - 1980 FSL & 1980 FEL, Unit Letter 'J'

* **Notation** : While these four producing wells have been approved for injection, in the event any of them is not so converted, then they will continue to be producing project wells eligible for the credit.

APPROVED BY:

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
DIRECTOR

SEAL

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

July 24, 1996

HAND DELIVERED

Mr. Ben Stone
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: **NMOCD Case 11482 (Order R-10589)**
Request for Certification of Qualification
for an Enhanced Oil Recovery Project
for SDX Resources, Inc.

Dear Mr. Stone:

On behalf of SDX Resources Inc. and in accordance with Division Order R-10589 (copy enclosed), I hereby request from the Division a Certificate of Qualification for the following described project:

Project Name:

State "7" Leasehold Waterflood Project

Project Operator:

SDX Properties, Inc.
P. O. Box 5061
Midland, Texas 79701

Project Area:

The designated and undesignated East Millman-Queen-Grayburg-San Andres Pool within the following project area in Eddy County, New Mexico, containing 640 acres, more or less and described as follows:

Township 19 South, Range 29 East, NMPM

Section 7: All

Project wells eligible for credit:

1. Conoco State "7" Well No. 2 (API No. 30-015-23693)
1980 feet FSL & 541 feet FWL (Unit L) Section 7
2. Conoco State "7" Well No. 3 (API No. 30-015-23694)
1980 feet FNL & 542 feet FWL (Unit E) Section 7
3. Conoco State "7" Well No. 4 (API No. 30-015-23919)
660 feet FNL & 540 feet FWL (Unit D) Section 7
4. Conoco State "7" Well No. 5 (API No. 30-015-23920)
2180 feet FNL & 1740 feet FWL (Unit F) Section 7
5. Conoco State "7" Well No. 6 (API No. 30-015-23921)
660 feet FNL & 1740 feet FWL (Unit C) Section 7
6. Conoco State "7" Well No. 7 (API No. 30-015-2390)
1980 feet FNL & 1980 feet FEL (Unit G) Section 7
7. Conoco State "7" Well No. 8 (API No. 30-015-23931)
660 feet FNL & 1880 feet FEL (Unit B) Section 7
8. Conoco State "7" Well No. 9 (API No. 30-015-23932)
660 feet FNL & 660 feet FEL (Unit A) Section 7
9. Conoco State "7" Well No. 11 (API No. 30-015-24157)
1980 feet FNL & 560 feet FEL (Unit H) Section 7
10. Conoco State "7" Well No. 12 (API No. 30-015-25160)
1880 feet FSL & 1980 feet FWL (Unit K) Section 7
11. Conoco State "7" Well No. 13 (API No. 30-015-25161)
1980 feet FSL & 1980 feet FEL (Unit J) Section 7

Oil Conservation Division
July 24, 1996
Page 3.

Project injection wells:

1. Conoco State "7" Well No. 3 (API No. 30-015-23694)
1980 feet FNL & 542 feet FWL (Unit E) Section 7
2. Conoco State "7" Well No. 5 (API No. 30-015-23920)
2180 feet FNL & 1740 feet FWL (Unit F) Section 7
3. Conoco State "7" Well No. 6 (API No. 30-015-23921)
660 feet FNL & 1740 feet FWL (Unit C) Section 7
4. Conoco State "7" Well No. 7 (API No. 30-015-23930)
1980 feet FNL & 1980 feet FEL (Unit G) Section 7

* **notation:** While these four producing wells have been approved for injection, in the event any of them is not so converted, then they will continue to be producing project wells eligible for the credit.

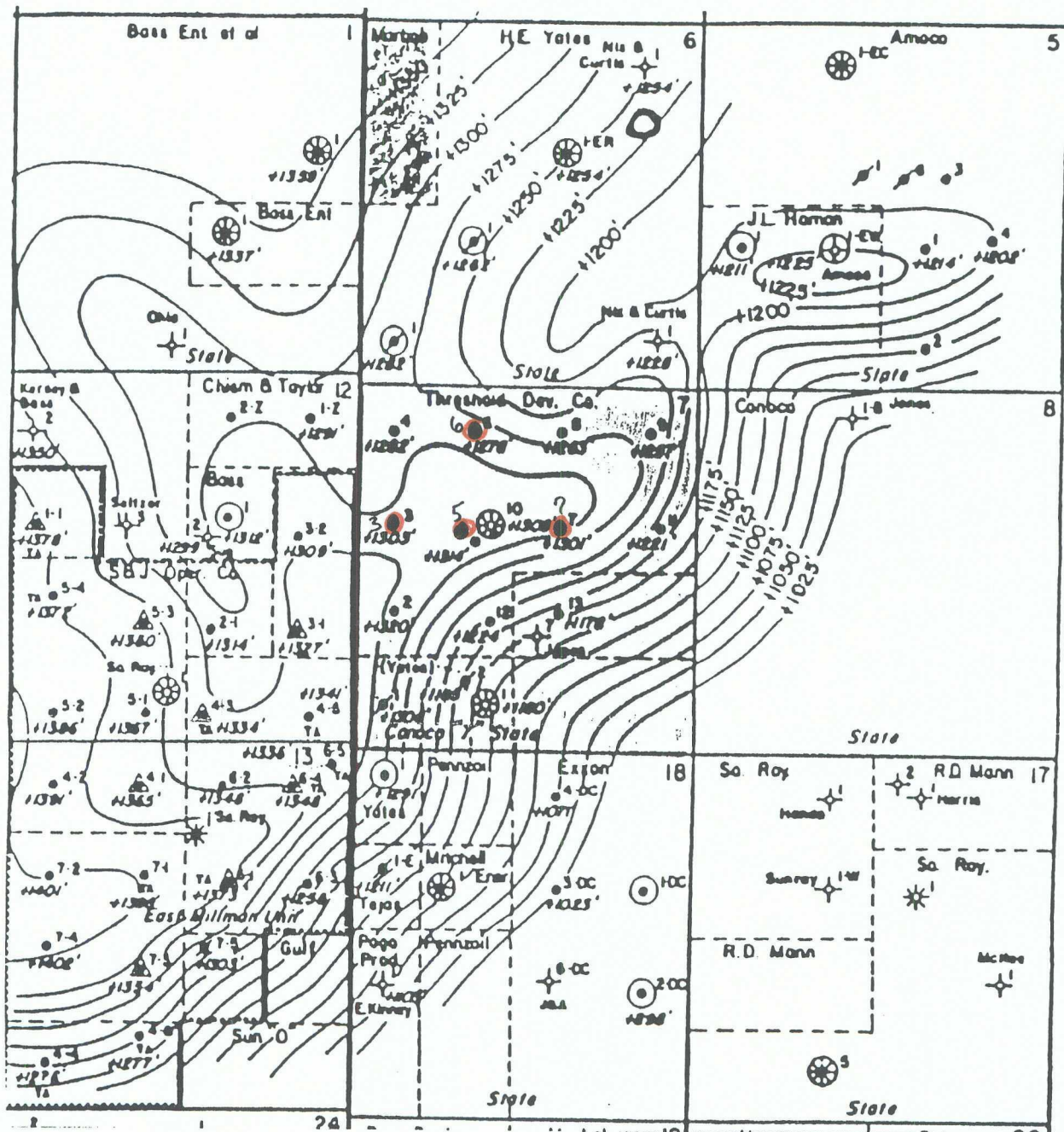
Please let me know if you require anything further.

Very truly yours,

A handwritten signature in black ink, appearing to read 'W. Thomas Kellahin', written over a horizontal line.

W. Thomas Kellahin

cc: SDX Resources Inc.
Attn: Chuck Morgan



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. 11482
ORDER NO. R-10589

**APPLICATION OF SDX RESOURCES, INC. FOR A LEASEHOLD PILOT
WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL
TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT",
EDDY COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 7, 1996 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 1st day of May, 1996 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 in this matter, SDX Resources, Inc., seeks authority to institute a pilot waterflood project within its State "7" Lease comprising all of Section 7, Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool through the following four existing wells located in said Section 7:

(a) the Conoco State "7" Well No. 3 (API No. 30-015-23694), located 1980 feet from the North line and 542 feet from the West line (Lot 2/Unit E) is currently a producing oil well in the subject pool (perforations from 2142 feet to

2239 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval;

(b) the Conoco State "7" Well No. 5 (**API No. 30-015-23920**), located 2180 feet from the North line and 1740 feet from the West line (Unit F) is currently a producing oil well in the subject pool (perforations from 2054 feet to 2179 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval;

(c) the Conoco State "7" Well No. 6 (**API No. 30-015-23921**), located 660 feet from the North line and 1740 feet from the West line (Unit C) is currently a producing oil well in the subject pool (perforations from 2165 feet to 2238 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval; and,

(d) the Conoco State "7" Well No. 7 (**API No. 30-015-23930**), located 1980 feet from the North and East lines (Unit G) is currently a producing oil well in the subject pool (perforations from 2069 feet to 2187 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval.

(3) The applicant testified that cumulative primary oil recovery from the 11 active producing wells on the State "7" Lease has been approximately 301,000 barrels and under the current mode of operations only 167,000 barrels remain as primary recoverable reserves.

(4) The current rate of production from these 11 active producing wells is approximately 55 barrels of oil per day; therefore, these wells can be considered to be in an advanced state of depletion and should therefore be properly classified as "stripper wells".

(5) Ultimately all 11 producing wells will be converted to water injection wells and 12 additional infill wells will be drilled and utilized as the project's producers. Total costs for the project is estimated at \$540,000.00. The applicant testified that approximately 410,000 barrels of additional incremental oil production is expected to be

recovered from this project.

(6) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil thereby preventing waste, exhibits sound engineering practices, is in the best interest of conservation, and will not impair correlative rights.

(7) The applicant submitted data on the proposed injection wells, water wells in the area, and all other wells (including plugged wells) which penetrate the zone of interest within the 1/2-mile "area-of-review" of the four subject injection wells. This data shows that wells in the area are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone, and includes testimony indicating no evidence of open faults or any other hydrologic connection between the injection zone and the fresh water resources in the area.

(8) The operator should take all steps to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(9) Injection into each of the four wells should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set no higher than 100 feet above the top of the uppermost perforation; the casing-tubing annulus in each well should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(10) The injection wells or pressurization system for each well should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure at the wellhead to no more than 0.2 psi per foot of depth to the top most perforation.

(11) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(12) The operator should give advance notice to 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 pressure-test in order that the same may be witnessed.

(13) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(14) The applicant further requests that the subject waterflood project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(15) The evidence presented indicates that the subject waterflood project meets all the criteria for approval.

(16) The approved "project area", to be designated the "*State "7" Leasehold Waterflood Project*", should comprise all of Section 7, Township 19 South, Range 29 East, NMPM, designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool, Eddy County, New Mexico.

(17) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(18) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(19) The injection authority granted herein for the proposed injection wells should 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.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, SDX Resources, Inc., is hereby authorized to institute a pilot waterflood project within its State "7" Lease comprising all of Section 7, Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool through the following four existing wells to be converted from producing oil wells to water injectors, all located in said Section 7:

Well Name and Number (API Number)	Footage Location (Lot Number/Unit Letter)	Perforated Injection Interval (feet)	Maximum Injection Pressure (psi)
Conoco State "7" Well No. 4 (30-015-23694)	1980' FNL & 542' FWL (2/M)	2142 - 2239	430
Conoco State "7" Well No. 5 (30-015-23920)	2180' FNL & 1740' FWL (F)	2054 - 2179	410
Conoco State "7" Well No. 6 (30-015-23921)	660' FNL & 1740' FWL (C)	2165 - 2238	435
Conoco State "7" Well No. 7 (30-015-23930)	1980' FN & EL (G)	2069 - 2187	415

(2) The waterflood project is hereby designated the "*State "7" Leasehold Waterflood Project*".

(3) The applicant must take all steps necessary to ensure that the injected water only enters and remains confined to 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.

(4) Injection shall be accomplished through 2-3/8 inch internally plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforation; the casing-tubing annulus in each well shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) The Division Director shall have the authority to administratively authorize an increase in the injection pressure limitation placed upon any well upon a proper showing by the operator that such higher pressure will not result in the migration of the injected water from its respective interval or fracture the confining strata.

(6) Prior to commencing injection operations, the casing in each injection well 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 applicant shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing or packer in any of the injection wells, 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.

(8) Should it become necessary, the supervisor of the Artesia District Office of the Division or the Director may at any time order a decrease of the injection pressure on any of the subject injection wells.

(9) The operator of the State "7" Leasehold Waterflood Project shall conduct injection operations in accordance with all applicable Division rules, regulations, and policies, including Division General Rules 701 through 708 and shall submit monthly progress reports in accordance with Division General Rules 706 and 1115.

IT IS FURTHER ORDERED THAT:

(10) The subject waterflood project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(11) The approved "project area" shall comprise all of Section 7, Township 19 South, Range 29 East, NMPM, designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool, Eddy County, New Mexico.

(12) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

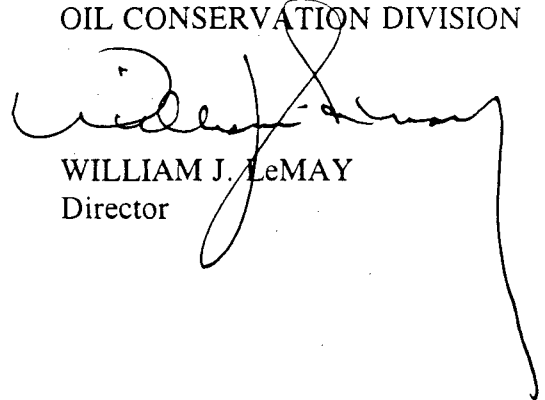
(13) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

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

(15) 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

A handwritten signature in black ink, appearing to read 'William J. LeMay', is written over the printed name and title. The signature is fluid and cursive, with a long, sweeping tail that extends downwards and to the right.

WILLIAM J. LeMAY
Director

SEAL

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. 11482
ORDER NO. R-10589

**APPLICATION OF SDX RESOURCES, INC. FOR A LEASEHOLD PILOT
WATERFLOOD PROJECT AND QUALIFICATION FOR THE RECOVERED OIL
TAX CREDIT PURSUANT TO THE "NEW MEXICO OIL RECOVERY ACT",
EDDY COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 7, 1996 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 1st day of May, 1996 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 in this matter, SDX Resources, Inc., seeks authority to institute a pilot waterflood project within its State "7" Lease comprising all of Section 7, Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool through the following four existing wells located in said Section 7:

(a) the Conoco State "7" Well No. 3 (API No. 30-015-23694), located 1980 feet from the North line and 542 feet from the West line (Lot 2/Unit E) is currently a producing oil well in the subject pool (perforations from 2142 feet to

2239 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval;

(b) the Conoco State "7" Well No. 5 (**API No. 30-015-23920**), located 2180 feet from the North line and 1740 feet from the West line (Unit F) is currently a producing oil well in the subject pool (perforations from 2054 feet to 2179 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval;

(c) the Conoco State "7" Well No. 6 (**API No. 30-015-23921**), located 660 feet from the North line and 1740 feet from the West line (Unit C) is currently a producing oil well in the subject pool (perforations from 2165 feet to 2238 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval; and,

(d) the Conoco State "7" Well No. 7 (**API No. 30-015-23930**), located 1980 feet from the North and East lines (Unit G) is currently a producing oil well in the subject pool (perforations from 2069 feet to 2187 feet), this well is to be converted from a producing oil well to a water injection well with no change in the perforated interval.

(3) The applicant testified that cumulative primary oil recovery from the 11 active producing wells on the State "7" Lease has been approximately 301,000 barrels and under the current mode of operations only 167,000 barrels remain as primary recoverable reserves.

(4) The current rate of production from these 11 active producing wells is approximately 55 barrels of oil per day; therefore, these wells can be considered to be in an advanced state of depletion and should therefore be properly classified as "stripper wells".

(5) Ultimately all 11 producing wells will be converted to water injection wells and 12 additional infill wells will be drilled and utilized as the project's producers. Total costs for the project is estimated at \$540,000.00. The applicant testified that approximately 410,000 barrels of additional incremental oil production is expected to be

recovered from this project.

(6) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil thereby preventing waste, exhibits sound engineering practices, is in the best interest of conservation, and will not impair correlative rights.

(7) The applicant submitted data on the proposed injection wells, water wells in the area, and all other wells (including plugged wells) which penetrate the zone of interest within the 1/2-mile "area-of-review" of the four subject injection wells. This data shows that wells in the area are cased and plugged so as to protect fresh water and prevent fluid migration from the injection zone, and includes testimony indicating no evidence of open faults or any other hydrologic connection between the injection zone and the fresh water resources in the area.

(8) The operator should take all steps to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(9) Injection into each of the four wells should be accomplished through 2 3/8-inch internally plastic-lined tubing installed in a packer set no higher than 100 feet above the top of the uppermost perforation; the casing-tubing annulus in each well should be filled with an inert fluid; and a pressure gauge or approved leak-detection device should be attached to the annulus in order to determine leaks in the casing, tubing or packer.

(10) The injection wells or pressurization system for each well should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure at the wellhead to no more than 0.2 psi per foot of depth to the top most perforation.

(11) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer-setting depth, to assure integrity of such casing.

(12) The operator should give advance notice to 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 pressure-test in order that the same may be witnessed.

(13) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(14) The applicant further requests that the subject waterflood project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(15) The evidence presented indicates that the subject waterflood project meets all the criteria for approval.

(16) The approved "project area", to be designated the "*State "7" Leasehold Waterflood Project*", should comprise all of Section 7, Township 19 South, Range 29 East, NMPM, designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool, Eddy County, New Mexico.

(17) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(18) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(19) The injection authority granted herein for the proposed injection wells should 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.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, SDX Resources, Inc., is hereby authorized to institute a pilot waterflood project within its State "7" Lease comprising all of Section 7, Township 19 South, Range 29 East, NMPM, Eddy County, New Mexico, by the injection of water into the designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool through the following four existing wells to be converted from producing oil wells to water injectors, all located in said Section 7:

Well Name and Number (API Number)	Footage Location (Lot Number/Unit Letter)	Perforated Injection Interval (feet)	Maximum Injection Pressure (psi)
Conoco State "7" Well No. 4 (30-015-23694)	1980' FNL & 542' FWL (2/M)	2142 - 2239	430
Conoco State "7" Well No. 5 (30-015-23920)	2180' FNL & 1740' FWL (F)	2054 - 2179	410
Conoco State "7" Well No. 6 (30-015-23921)	660' FNL & 1740' FWL (C)	2165 - 2238	435
Conoco State "7" Well No. 7 (30-015-23930)	1980' FN & EL (G)	2069 - 2187	415

(2) The waterflood project is hereby designated the "*State "7" Leasehold Waterflood Project*".

(3) The applicant must take all steps necessary to ensure that the injected water only enters and remains confined to 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.

(4) Injection shall be accomplished through 2-3/8 inch internally plastic-lined tubing installed in a packer set approximately within 100 feet of the uppermost injection perforation; the casing-tubing annulus in each well shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) The Division Director shall have the authority to administratively authorize an increase in the injection pressure limitation placed upon any well upon a proper showing by the operator that such higher pressure will not result in the migration of the injected water from its respective interval or fracture the confining strata.

(6) Prior to commencing injection operations, the casing in each injection well 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 applicant shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing or packer in any of the injection wells, 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.

(8) Should it become necessary, the supervisor of the Artesia District Office of the Division or the Director may at any time order a decrease of the injection pressure on any of the subject injection wells.

(9) The operator of the State "7" Leasehold Waterflood Project shall conduct injection operations in accordance with all applicable Division rules, regulations, and policies, including Division General Rules 701 through 708 and shall submit monthly progress reports in accordance with Division General Rules 706 and 1115.

IT IS FURTHER ORDERED THAT:

(10) The subject waterflood project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(11) The approved "project area" shall comprise all of Section 7, Township 19 South, Range 29 East, NMPM, designated and Undesignated East Millman-Queen-Grayburg-San Andres Pool, Eddy County, New Mexico.

(12) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(13) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

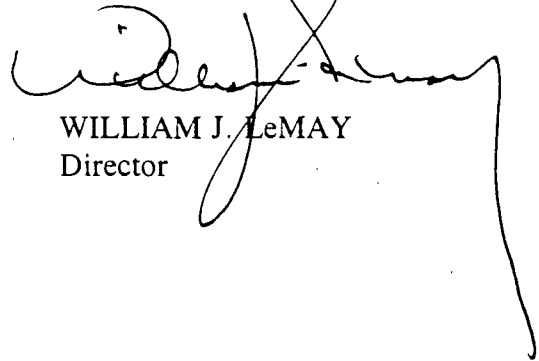
(14) The injection authority granted herein for the proposed injection wells shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. LeMay', is written over the typed name and title. The signature is fluid and cursive, with a long, sweeping tail that extends downwards and to the right.

WILLIAM J. LeMAY
Director

S E A L