



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

ADMINISTRATIVE ORDER NO. WFX-781

***APPLICATION OF SDX RESOURCES, INC. TO EXPAND ITS WATERFLOOD PROJECT IN  
THE EAST MILLMAN YATES-SEVEN RIVERS-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-2405 as amended, SDX Resources, Inc. has made application to the Division on December 17, 2001 for permission to expand its East Millman Unit Waterflood Project in the East Millman Yates-Seven Rivers-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 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, SDX Resources, Inc., is hereby authorized to inject water into the Queen and Grayburg formations at approximately 1840 feet to approximately 2283 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:

East Millman Unit No. 203 (API No. 30-015-27348)  
10' FNL & 1310' FEL Unit A, Section 22, T-19S, R-28E  
Injection Interval: 1840'-2180'  
Maximum Surface Injection Pressure: 368 PSI

East Millman Unit No. 212 (API No. 30-015-27469)  
1310' FSL & 1310' FEL Unit P, Section 15, T-19S, R-28E  
Injection Interval: 1920'-2283'  
Maximum Surface Injection Pressure: 384 PSI

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 0.2 psi per foot of depth to the uppermost injection perforations of each well as indicated on Exhibit "A".

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 or 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 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-2405 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.

Remarks: This order supersedes Division Order No. WFX-732 dated February 18, 1998, which order authorized injection into the East Millman Unit Wells No. 203 and 212. Pursuant to the terms of Order No. WFX-732, the injection authority expired for these two wells on February 19, 1999.

DONE at Santa Fe, New Mexico, on this 24th day of January, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

S E A L

LW/DRC

cc: Oil Conservation Division - Artesia  
Case File No.2656  
File-WFX-732 /



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Betty Rivera  
Cabinet Secretary

Lori Wrotenbery  
Director  
Oil Conservation Division

*ADMINISTRATIVE ORDER NO. WFX-782*

***APPLICATION OF SDX RESOURCES, INC. TO EXPAND ITS WATERFLOOD PROJECT IN  
THE EAST MILLMAN YATES-SEVEN RIVERS-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-2405 as amended, SDX Resources, Inc. has made application to the Division on January 22, 2002 for permission to expand its East Millman Unit Waterflood Project in the East Millman Yates-Seven Rivers-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 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, SDX Resources, Inc., is hereby authorized to inject water into the Queen and Grayburg formations at approximately 1878 feet to approximately 2568 feet through 2 7/8-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:

East Millman Unit No. 158 (API No. 30-015-02289)  
1980' FNL & 1980' FEL Unit G, Section 22, T-19S, R-28E  
Injection Interval: 1878'-2568'  
Maximum Surface Injection Pressure: 376 PSI

East Millman Unit No. 208 (API No. 30-015-27468)  
1360' FNL & 1310' FEL Unit H, Section 22, T-19S, R-28E  
Injection Interval: 1682'-2290'  
Maximum Surface Injection Pressure: 336 PSI

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 wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to 0.2 psi per foot of depth to the uppermost injection perforations.

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 or 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 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-2405 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.

Remarks: This order supersedes Division Order No. WFX-732 dated February 18, 1998, which order authorized injection into the East Millman Unit Wells No. 158 and 208. Pursuant to the terms of Order No. WFX-732, the injection authority expired for these two wells on February 19, 1999.

DONE at Santa Fe, New Mexico, on this 8th day of February, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



LORI WROTENBERY  
Director

S E A L

LW/DRC

cc: Oil Conservation Division - Artesia  
Case File No. 2656  
File-WFX-732