

**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:**

**APPLICATION OF CHEVRON U.S.A.
PRODUCTION CO. FOR APPROVAL TO
CONVERT THE EMSU WELLS 210, 212, 222,
252 AND 258 TO INJECTION IN THE
EUNICE MONUMENT SOUTH UNIT,
LEA COUNTY, NEW MEXICO.**

**CASE NO. 12320
ORDER NO. R-_____**

OIL CONSERVATION DIV.
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**CHEVRON U.S.A. PRODUCTION CO.'S
PROPOSED ORDER OF THE DIVISION**

BY THE DIVISION:

This cause came on for hearing at 8:15 a. m. on March 2, 2000 at Santa Fe, New Mexico, before Examiner Mark Ashley.

NOW, on this ____ day of March, 2000, 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, Chevron U.S.A. Production Co. ("Chevron"), is the operator of the Eunice Monument South Unit Waterflood Project, as defined and authorized by Division Order No. R-7766, as amended, dated December 27, 1984, to include that area comprising the Eunice Monument South Unit as fully described in Exhibit "A" attached hereto, all within the Eunice Monument Grayburg-San Andres Pool, Lea County, New Mexico.

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(3) The applicant seeks authority to expand the Eunice Monument South Unit Waterflood Project by converting five existing producing wells, described as follows, to injection:

<u>WELL NUMBER</u>	<u>WELL LOCATION</u>	<u>INJECTION INTERVAL</u>	<u>UNIT TOP</u>	<u>PACKER DEPTH</u>
EMSU No. 210	3261' FNL & 1980" FWL K-Sec.4-T21S-R36E	3650'-3807'	3613'	3617'
EMSU No. 212	3258' FNL & 660' FEL I-Sec.5-T21S-R36E	3661'-3890'	3646'	3615'
EMSU No. 222	3300' FSL & 1980' FEL O-Sec.6-T21S-R36E	3754'-4010'	3673'	3700'
EMSU No. 252	660' FSL & 1980' FEL W-Sec.6-T21S-R36E	3758'-3977'	3688'	3711'
EMSU No. 258	940' FSL & 940' FWL U-Sec.4-0-T21S-R36E	3659'-3817'	3633'	3637'

(4) Applicant proposes to inject into the Penrose, Grayburg and San Andres formations through the gross interval from approximately 3,400 feet to 4,500 feet.

(5) Applicant further proposes to inject into the subject wells through 2 3/8-inch internally plastic or cement lined tubing set in a packer located no higher than 100 feet above the upper most perforation at a rate of approximately 750 barrels of water per day.

(6) Applicant requests that the subject wells be allowed to inject at a maximum surface injection pressure of 750 psi which is within the 0.2 pounds per foot of depth from the surface to the top most injection perforation as authorized previously by the Division in Order No. R-7766.

(7) The applicant submitted data on the proposed injection wells, all water wells and water bearing formations, and all other wells which penetrate the zone of interest within the 1/2 mile "area of review" of each of the proposed injection wells.

(8) The evidence indicates that there are no plugged and abandoned wells within 1/2 mile of any of the proposed injection wells.

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(9) Doyle Hartman, Oil Operator, ("Hartman") operator of two wells Eumont wells within the one-half mile areas of review for the proposed injection wells, appeared, through his attorney, in opposition to the application but did not present testimony.

(10) In response to questions from Hartman, Chevron presented evidence which showed that it operates the Eunice Monument South Unit Waterflood Project in accordance with industry-accepted injection practices and standards and that:

- actually injected fluids to injection properties,*
- A. all necessary steps will be taken to ensure that the injection fluid enters only the proposed injection interval and all reasonable measures will be taken to prevent injection water from exiting the unitized interval into other formations or onto the surface from injection, production or plugged and abandoned wells.
 - B. each of the proposed injection wells has been properly cemented with adequate volumes of API sulfate-resistant cement and the wells will be monitored to assure that, if there is a problem with the cement in any of these wells, action can be promptly undertaken to correct the problem with any wellbore, and
 - C. the wellhead injection pressures for the proposed injection wells will be at or below the pressures authorized by the Oil Conservation Division and constantly monitored to assure that any increase in pressure can be promptly detected and corrected to assure that injection is kept below the reservoir fracture pressure and thereby will not result in the migration of fluids from the injection formation.

(11) The application of Chevron for expansion of the Eunice Monument South Unit Waterflood Project by the conversion of five additional wells to injection should be approved.

(12) The operator should take all steps necessary to ensure that the injected fluid 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.

(13) The casing tubing annulus within each of the subject injection wells should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing of packer.

(14) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 pounds per foot of depth from the surface to the top most injection perforation (approximately 750 psi).

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

(16) The operator should give advanced notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(17) The Division should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the migration of fluid from the injection formation.

(18) The injection authority granted herein for the subject injection wells should terminate one year from the effective date of this order if the operator has not commenced injection operations into the 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, Chevron U.S.A. Production Co. is hereby authorized to convert the following described wells to injection wells within its Eunice Monument South Unit Waterflood Project in Sections 4, 5 and 6, Township 21 South, Range 36 East, NMPM, Eunice Monument Grayburg-San Andres Pool, Lea County, New Mexico:

<u>INJECTION WELL NUMBER</u>	<u>UNIT WELL LOCATION</u>	<u>PACKER INTERVAL</u>	<u>TOP</u>	<u>DEPTH</u>
EMSU No. 210	3261' FNL & 1980" FWL K-Sec.4-T21S-R36E	3650'-3807'	3613'	3617'
EMSU No. 212	3258' FNL & 660' FEL I-Sec.5-T21S-R36E	3661'-3890'	3646'	3615'
EMSU No. 222	3300' FSL & 1980' FEL O-Sec.6-T21S-R36E	3754'-4010'	3673'	3700'
EMSU No. 252	660' FSL & 1980' FEL W-Sec.6-T21S-R36E	3758'-3977'	3688'	3711'

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EMSU No. 258 940' FSL & 940' FWL 3659'-3817' 3633' 3637'
U-Sec.4-0-T21S-R36E

(2) The operator shall take all steps to ensure that the injection fluid enters only the proposed injection interval and all reasonable measures will be taken to prevent injection water from exiting the unitized interval into other formations or onto the surface from injection, production or plugged and abandoned wells,

(3) Injection into each of the five injection wells shall be accomplished through 2-3/8 inch internally plastic or cement lined tubing installed in a packer set within approximately 100 feet of the uppermost injection perforation.

(4) The casing tubing annulus within each of the subject injection wells shall be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer of each well.

(5) The injection wells or pressurization system shall be initially equipped with a pressure control device of acceptable substitute which will limit the surface injection pressure to no more than 0.2 pounds per foot of depth from the surface to the top most injection perforation (approximately 750 psi).

(6) Prior to commencing injection operations into the subject injection wells, the casing in each 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 in a manner that is satisfactory to the supervisor of the Division's Hobbs District Office.

(7) The operator shall give advanced notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(8) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in any of the injection wells; the leakage of water, natural gas or oil from or around any producing well within the Eunice Monument South Waterflood Project Area. The operator shall take such steps as may be necessary to correct such failure or leakage.

(9) The Division shall have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the migration of fluid from the injection formation.

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(10) The operator of the Eunice Monument South Unit Waterflood project shall conduct injection operations in accordance with all applicable Division rules and regulations, including Division Rules 701 through 708. Further, the unit operator shall submit monthly progress reports in accordance with Rules 706 and 1115.

(11) Jurisdiction of this case is hereby 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

LORI WROTENBERY
Director

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Exhibit "A"
Case No. 12284
Order No. R-_____

Chevron U.S.A. Production Co.
Approved injection Wells
Eunice Monument South Unit Waterflood Project

Township 20 South, Range 36 East, NMPM

Section 10: E/2 E/2
Section 11: W/2, W/2 NE/4, SE/4
Section 13: W/2, S/2 SE/4
Section 14: All
Section 15: NE/4 NE/4
Section 23: All
Section 24: N/2, SW/4, W/2 SE/4
Section 25: All
Section 36: All

Township 20 South, Range 37 East, NMPM

Section 30: S/2, S/2 N/2, NE/4 NW/4,
NW/4 NE/4
Section 31: All
Section 32: All

Township 21 South, Range 36 East, NMPM

Section 2: S/2 S/2
Section 3: Lots 3, 4, 5, 6, 11, 12, 13 and 14, S/2
Sections 4 through 11: All
Section 12: W/2 SW/4

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Section 13: NW/4 NW/4

Section 14 through 18: All

Section 21: N/2, N/2 S/2

Section 22: N/2, N/2 S/2