



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

October 26, 2005

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210

Attention: Mr. George H. Freeman

## **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 recovery project pursuant to the provisions of the "*New Mexico Enhanced Oil Recovery Act*," Sections 7-29A-1 through 7-29A-5, NMSA 1978. 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:	North Dagger Draw Upper Pennsylvanian Unit Waterflood Project
OCD ORDER NO.	R-12251
OPERATOR:	Yates Petroleum Corporation
ADDRESS:	105 South Fourth Street Artesia, New Mexico 88210
CERTIFICATION DATE:	October 26, 2005

*EOR Project Certification*  
*North Dagger Draw Upper Pennsylvanian*  
*Unit Waterflood Project*

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PROJECT AREA:

Township 19 South, Range 25 East, NMPM

Sections 16 & 17:	All
Section 18:	NE/4 NE/4, S/2 NE/4, SE/4 NW/4, S/2
Sections 19 through 21:	All
Sections 28 through 30:	All

APPROVED BY:

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
DIRECTOR

Xc: File-EOR 68  
Ms. Jan Goodwin, Secretary  
New Mexico Taxation and Revenue Department

MARTIN YATES, III  
1912-1985  
FRANK W. YATES  
1936-1986



105 South Fourth Street  
ARTESIA, NEW MEXICO 88210  
Telephone (505) 748-1471  
Fax (505) 748-4585

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

October 13, 2005

Mr. Mark Fesmire, Director  
Oil Conservation Division  
State of New Mexico  
1220 South St. Francis Drive  
Santa Fe NM 87505

Dear Mr. Fesmire:

Pursuant to the Oil Conservation Division Case Nos. 13227 and 13228, Order No. R-12251, Page 13, Paragraph (23), Yates Petroleum Corporation, as Unit Operator, on September 15, 2005 commenced water injection into Phase I of the North Dagger Draw Upper Penn Unit and requests the Division to certify Phase I to the New Mexico Department of Taxation and Revenue, in order to be eligible for the "Enhanced Oil Recovery Act" tax rate.

Water injection commenced into each of the five wells authorized by Order No. R-12251, which are:

- NDDUPU #53, formerly Ross EG Fed. Com. #5,
- NDDUPU #60, formerly Ross EG Fed. Com. #12,
- NDDUPU #77, formerly Ross EG Fed. Com. #9,
- NDDUPU #101, formerly Dagger Draw 30N Com. #15,
- NDDUPU #108, formerly Dagger Draw 30N Com. #17.

Yates Petroleum Corporation respectfully requests your attention to this request. If this request for certification is not complete or if you need more information please let me know. My office phone number is (505) 748-4211.

Sincerely,

George H. Freeman  
Reservoir Engineering Supervisor  
Yates Petroleum Corporation

RECEIVED  
OCT 17 2005  
OIL CONSERVATION  
DIVISION

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 YATES PETROLEUM CORPORATION FOR STATUTORY  
UNITIZATION, EDDY COUNTY, NEW MEXICO.**

**CASE NO. 13227**

**APPLICATION OF YATES PETROLEUM CORPORATION FOR APPROVAL OF  
A WATERFLOOD PROJECT AND QUALIFICATION OF THIS PROJECT AREA  
FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE NEW MEXICO  
ENHANCED OIL RECOVERY ACT, EDDY COUNTY, NEW MEXICO.**

**CASE NO. 13228**

**ORDER NO. R-12251**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 4, 2004, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 20th day of December, 2004, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The applicant in Case No. 13227, Yates Petroleum Corporation ("Yates" or "Applicant"), seeks: (i) the statutory unitization, pursuant to the "Statutory Unitization Act", Sections 70-7-1 through 70-7-21, as amended, NMSA (1978), for the purpose of instituting secondary recovery operations within the North Dagger Draw-Upper Pennsylvanian Pool (15472) comprising 5,612.95 acres, more or less, of State, Federal, and fee lands in Eddy County, New Mexico, to henceforth be known as the North Dagger Draw Upper Pennsylvanian Unit Area; and (ii) approval of the "Unit Agreement" and "Unit Operating

*Agreement*", which were submitted at the hearing as Applicant's Exhibit Nos. 3 and 5.

(3) In Case No. 13228, Yates seeks authority:

(a) to institute a waterflood project within its proposed North Dagger Draw Upper Pennsylvanian Unit Area by the injection of water into the North Dagger Draw-Upper Pennsylvanian Pool, initially through the five following described existing wells to be converted from producing oil wells to injection wells; and

(b) to qualify this project for the recovered oil tax rate pursuant to the "Enhanced Oil Recovery Act," NMSA 1978, Sections 7-29A-1 through 7-29A-5, as amended.

API No.	Well Name and Number	ULSTR	Footage Location	Injection Interval/Perforations (feet)
30-015-26937	Ross "EG" Federal Com. #5	A-19-19S-25E	860' FN & EL	7,725 - 7,908
30-015-27053	Ross "EG" Federal Com. #12	H-19-19S-25E	1980' FNL & 660' FEL	7,740 - 7,882
30-015-26949	Ross "EG" Federal Com. #9	I-19-19S-25E	1980' FSL & 660' FEL	7,718 - 7,896
30-015-27689	Dagger Draw "30-N" Com. #15	A-30-19S-25E	660' FN & EL	7,620 - 7,826
30-015-27378	Dagger Draw "30-N" Com. #17	H-30-19S-25E	1655' FNL & 660' FEL	7,654 - 7,827

(4) Cases No. 13227 and 13228 were consolidated at the hearing for the purpose of testimony.

(5) The proposed North Dagger Draw Upper Pennsylvanian Unit Area is to comprise the following described lands in Eddy County, New Mexico:

**TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM**

Sections 16 and 17: All  
 Section 18: NE/4 NE/4, S/2 NE/4, SE/4 NW/4, S/2  
 Sections 19 through 21: All  
 Sections 28 through 30: All.

<i>Federal lands:</i>	<i>1,805.17 acres</i>	<i>32.16 %</i>
<i>State lands:</i>	<i>1,040.00 acres</i>	<i>18.53 %</i>
<i>Fee lands:</i>	<i>2,767.78 acres</i>	<i>49.31 %</i>

(6) The horizontal confines of the North Dagger Draw Upper Pennsylvanian Unit are within the governing limits, as specified by Division Rule 104.A (2), of the North Dagger Upper-Pennsylvanian Pool in an area having been reasonably defined by development.

(7) The evolution of the rules and regulations governing the North Dagger Draw-Upper Pennsylvanian Pool are as follows:

(a) Division Order No. R-4691, issued in Case No. 5117 on December 11, 1973, promulgated temporary special rules and regulations that established standard 320-acre spacing and proration units comprising any two contiguous quarter sections within a single governmental section and a special depth bracket allowable of 427 barrels of oil per day ("BOPD") for a standard 320-acre unit;

(b) by Division Order No. R-4961-A, issued in Reopened Case No. 5117 on February 3, 1976, spacing was changed 320 to 160 acres units comprising a single governmental quarter section and the special depth bracket allowable was also reduced to 267 BOPD for a standard 160-acre unit;

(c) Division Order No. R-4961-B, issued in Case No. 5763 on October 12, 1976, left spacing at 160 acres but changed the special depth bracket allowable from 267 BOPD to 350 BOPD for a standard 160-acre unit;

(d) Division Order No. R-4961-C, issued in Reopened Case No. 5117 on March 15, 1977, made permanent the temporary rules for the North Dagger Draw-Upper Pennsylvanian Pool by the three previous orders;

(e) by Division Order No. R-5565, issued in Case No. 6025 and dated November 1, 1977, the limiting gas-oil ratio ("GOR") for this pool was increased from 2,000 cubic feet of gas per day for each barrel of oil to 10,000 cubic feet;

(f) Division Order No. R-4961-D, issued in Case No. 10221 on March 21, 1991, changed once again the special pool-wide depth bracket allowable from 350 BOPD to 700 BOPD; and

(g) to summarize, the North Dagger Draw-Upper Pennsylvanian Pool is currently spaced on 160-acre oil spacing and proration units comprising a single governmental quarter section; since this pool is classified an "oil pool," each unit is allowed multiple wells and the

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simultaneous dedication of production from a single standard 160-acre unit is permitted; each standard 160-acre unit is allowed to produce up to but not in excess of 700 BOPD and 7,000 MCF of casinghead gas per day (GOR of 10,000 to one times the top oil allowable of 700 BOPD which equals 7,000 MCFPD).

(8) The vertical limits or "unitized formation" of the North Dagger Draw Upper Pennsylvanian Unit Area is that interval extending from the top of the Canyon Carbonate formation found at a depth of 7,680 feet to the base of the upper Canyon pay at a depth of 8,076 feet as shown on the GR/CNL/LDT/PEF and GR/Dual Lateral Log in Yates's Vann "APD" Well No. 1 (API No. 30-015-28414), located 660 feet from the North and West lines (Unit D) of Section 21, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico. The type-log for this Unit was submitted at the hearing as Applicant's Exhibit No. 13.

(9) The proposed Unit Area contains 99 separate tracts of land: (i) 57 of the tracts, comprising 2,767.78 acres, more or less, are in private ownership; (ii) 16 tracts, comprising 1,040.00 acres, more or less, are State of New Mexico land currently under lease; and (iii) the remaining 26 tracts, comprising 1,805.17 acres, more or less, are Federal lands that are also currently under lease. Yates and its related entities (Abo Petroleum Corporation, MYCO Industries, Inc., Sacramento Partners, Limited, Sharbro Oil Limited Company, John A. Yates, Estate of Lillie M. Yates, Trust Q u/w/o Peggy A. Yates, and Yates Drilling Company) own approximately 75.6 % of the combined working interests in the Unit Area.

(10) At the time of the hearing approximately 93 % of the working interests and 87 % of the royalty interests were committed to the Unit. The 32.16 % royalty owner approval includes federal lands owned by these United States, the U. S. Bureau of Land Management acting on their behalf, has indicated its preliminary approval by designating the proposed North Dagger Draw Upper Pennsylvanian Unit as logical for conducting secondary recovery operations, and the New Mexico Commissioner of Public Lands, acting on behalf of the state's trust lands (18.53 %) has preliminarily approved the proposed unitization.

(11) In August, 2003, Applicant commenced negotiations with all of the mineral interest owners within the proposed Unit Area. Evidence presented further indicates that the Applicant has made a good faith effort to secure voluntary unitization within the above-described North Dagger Draw Upper Pennsylvanian Unit Area.

(12) All owners of mineral interest that have not agreed to unitization were notified of this hearing by Applicant; moreover, no owners of mineral interest, affected, or other interested party appeared at the hearing in opposition to the implementation of secondary recovery operations or the unitization of the this area.

(13) Geological evidence presented by the Applicant shows that:

- (a) the pay interval within the Upper Pennsylvanian formation that is the subject of this matter consists of a porous dolomite material, a carbonate build-up with porosity attributed to vugular, intercrystalline, and fracturing;
- (b) within the proposed Unit Area the structure of the Upper Pennsylvanian dolomite plunges to the northeast;
- (c) all of the wells within the Unit Area are above the established oil-water contact, which is at a sub-sea depth of minus 4,380 feet; and
- (d) pay thickness within the Unit Area varies from 40 to 200 feet.

(14) The engineering evidence presented by the Applicant indicates that:

- (a) development of the North Dagger Draw-Upper Pennsylvanian Pool within the proposed Unit Area has been on effective 40-acre spacing, or four wells per standard 160-acre unit;
- (b) current production rates for producing wells within the proposed Unit Area is below 10 barrels of oil per day;
- (c) the wells currently producing within the proposed unitized area are close to their economic limits;
- (d) the present Upper-Pennsylvanian oil producing wells within the subject project area and interval are in an advanced state of depletion and should therefore be properly classified as "stripper wells";
- (e) the proposed secondary recovery operation is feasible, and the proposed Unit area can be efficiently and effectively operated under the proposed unit plan of development;
- (f) all spacing and proration units within the proposed Unit Area should contribute to secondary production;



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(g) waterflood operations will be initiated with the five aforementioned injection well conversions and will continue in increments until the entire unitized area is swept by injection wells;

(h) the estimated remaining primary production from the Unit Area is approximately 191,500 barrels of oil and 1.2 billion cubic feet of gas ("BCF"), having a total reported discounted value of approximately \$6,700,000.00;

(i) if the proposed secondary recovery operation is implemented, future production is estimated to be approximately 2,200,000 barrels of oil and 1.1 BCF of gas, having an estimated value of \$62,000,000.00;

(j) unitized management of this pay interval is necessary to effectively implement and carry out the proposed secondary recovery operations;

(k) each of the initial water injection wells will inject an average of 2,500 barrels of produced water, with a maximum of 5,000 barrels;

(l) no fresh water will be used as make-up supply if needed, thereby making the proposed waterflood operations attractive with respect to the State's fresh water conservation efforts;

(m) the injection wells are initially expected to take water on vacuum; however, if pressure is needed Yates will not exceed 1,520 psig or the Division's standard 0.2 psig per foot of depth to the uppermost perforation within each injection well, whichever is less; and

(n) total project costs for the proposed waterflood is approximately \$7,301,200.00 (\$1,340,000.00 in facility costs and the remaining \$5,961,200.00 for equipment, implementation, labor, and miscellaneous costs).

(15) The unitized management, operation, and further development of the North Dagger Draw-Upper Pennsylvanian Pool underlying the proposed Unit Area is reasonably necessary in order to effectively carry out the secondary recovery operations as proposed by Yates, which will serve to substantially increase the ultimate recovery of oil and associated gas from this pool. As evidenced by Yates's testimony, delays in implementing this project

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will be detrimental to the ultimate recovery of reserves from this pool.

(16) Additional technical evidence further indicates the presents of four fresh water wells within one mile of any of the proposed injection wells. The fresh water interval in the immediate area consists of the quaternary alluvium aquifer located at a depth of 390 feet.

(17) Applicant's "*Unit Agreement for the Development and Operation of the North Dagger Draw Upper Penn Unit*," or Unit Agreement, submitted as Exhibit No. 3, and "*Unit Operating Agreement*," submitted as Exhibit 5, should be incorporated by reference into this order.

(18) Section 13, "*Tract Participation*," on page 5 of the Unit Agreement contains the formula by which the participation of each tract in the Unit Area will be determined. Pursuant to this formula, individual tract allocation is based on 70% acreage and 30% remaining primary reserves as of January 1, 2003. Based of the testimony presented, this formula best serves to allocate unitized substances to each mineral interest owner on a fair, reasonable, and equitable basis. However, the Unit Agreement contains an error that confuses the description of the land factor in the participation formula. As originally filed with the Division, this factor was described as:

*"A = the Area Ratio based on the ratio of an Owners net  
acreage divided by the total acreage within the Unit Area"*

The evidence established that this language was in error and that it is inconsistent with: (i) how this factor had been explained to all interest owners in the Unit Area; and (ii) to how tract participation have been calculated and presented to the owners in the proposed Unit. Therefore, to correct this error and avoid further confusion about how this factor is determined, the description of the land factor in Section 13 on page 5 of the Unit Agreement should prove as follows:

*"A = the Area Ratio based on the ratio of the total acreage  
within the Tract divided by the total acreage within the Unit  
Area."*

(19) Amendment of the land factor in the Tract Participation formula as described above will not reduce any interest owner's participation in the production of unitized substances and should be required by the Division. Further, the participation formula contained in the proposed Unit Agreement, as corrected by this order, allocates the produced and saved unitized hydrocarbons to the separately owned tracts in the Unit Area on a fair, reasonable, and equitable basis.

(20) The other provisions of the proposed Unit Agreement and Unit Operating Agreement, including but not limited to the provision that provides for overhead charges of

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\$5,500.00 per month while drilling and \$550.00 per month while producing, are also fair and reasonable.

(21) The statutory unitization of the Unitized Formation within the Unit Area in accordance with the plan embodied in the Unit Agreement and the Unit Operating Agreement will prevent waste and protect correlative rights.

(22) The proposed unitized method of operation as applied to the North Dagger Draw Upper Pennsylvanian Unit is feasible and will result with reasonable probability in the increased recovery of substantially more oil and gas from the unitized portion of the North Dagger Draw-Upper Pennsylvanian Pool than would otherwise be recovered without unitization.

(23) The estimated additional costs of such secondary recovery operations will not exceed the estimated value of the additional oil so recovered plus a reasonable profit.

(24) Statutory unitization and adoption of Yates's proposed unitized method of operation in conducting its proposed waterflood will benefit all working interest and royalty interest owners within the proposed Unit Area, and will prevent waste and protect correlative rights of all parties.

(25) The proposed Unit Agreement and Unit Operating Agreement contain satisfactory provisions with respect to all of the matters required by NMSA 1978 Section 70-7-7, as amended.

(26) Yates is not requesting a nonparticipation penalty to apply parties unitized by this order who elect not to participate in subsequent operations.

(27) The proposed plan for unit operations set forth in the Unit Agreement and Unit Operating agreement have been approved in writing by persons who, under this order, will be required to initially pay at least seventy-five percent (75%) of the costs of unit operations.

(28) The operator of the proposed North Dagger Draw Upper Pennsylvanian Unit Waterflood Project should take all steps necessary to ensure that the injected water enters and remains confined to only the proposed injection interval and is not permitted to escape from that interval and migrate into other formations, producing intervals, pools, or onto the surface from injection, production, or plugged and abandoned wells.

(29) The proposed waterflood project should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(30) The evidence presented indicates that the application for approval of the

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proposed waterflood project meets all the criteria for approval.

(31) The evidence establishes that the proposed waterflood project also meets all of the criteria for certification by the Division as a qualified Enhanced Oil Recovery Project ("EOR") pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).

(32) Applicant proposes to phase the institution of the waterflood project within two distinct areas of its North Dagger Draw Upper Pennsylvanian Unit Area. Phase I, to include that portion of the Unit Area in Sections 18, 19, 20, and 30, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, is to be implemented approximately one-and-a-half years prior to Phase II, which will include Sections 2, 16, 17, 21, 28, and 29, all in Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico.

(33) The approved or certified "project area" should initially comprise that area described in Finding Paragraph No. (5) above, provided however that Phase I and Phase II areas within the project area may be independently certified by the Division to the New Mexico Department of Taxation and Revenue.

(34) To be eligible for the EOR credit, the operator should advise the Division when water injection commences into the Phase I area and the Phase II area of the project and at such time(s), request the Division certify Phase I and II to the New Mexico Department of Taxation and Revenue.

(35) The Phase I and II areas within the project and/or the producing wells within such areas eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence present by the operator in its demonstration of the occurrence of a positive production response.

IT IS THEREFORE ORDERED THAT:

(1) The application of Yates Petroleum Corporation ("Yates" or "Applicant") in Case No. 13227 for the North Dagger Draw Upper Pennsylvanian Unit, covering 5,612.95 acres, more or less, of State, Federal, and fee lands in the North Dagger Draw-Upper Pennsylvanian Pool (15472), Eddy County, New Mexico is hereby approved for statutory unitization, for the purpose of establishing a secondary recovery project, pursuant to the "Statutory Unitization Act", Sections 70-7-1 through 70-7-21, as amended, NMSA (1978).

(2) The lands herein designated the North Dagger Draw Upper Pennsylvanian Unit Area shall comprise the following described acreage in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM.

Sections 16 and 17:	All
Section 18:	NE/4 NE/4, S/2 NE/4, SE/4 NW/4, S/2
Sections 19 through 21:	All
Sections 28 through 30:	All.

<i>Federal lands:</i>	<i>1,805.17 acres</i>	<i>32.16 %</i>
<i>State lands:</i>	<i>1,040.00 acres</i>	<i>18.53 %</i>
<i>Fee lands:</i>	<i>2,767.78 acres</i>	<i>49.31 %.</i>

(3) The vertical limits or "unitized formation" of the North Dagger Draw Upper Pennsylvanian Unit Area shall include that interval extending from the top of the Canyon Carbonate formation found at a depth of 7,680 feet to the base of the upper Canyon pay at a depth of 8,076 feet as shown on the GR/CNL/LDT/PEF and GR/Dual Lateral Log in Yates's Vann "APD" Well No. 1 (API No. 30-015-28414), located 660 feet from the North and West lines (Unit D) of Section 21, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, which was submitted at the hearing as Applicant's Exhibit No. 13.

(4) Applicant's "Unit Agreement for the Development and Operation of the North Dagger Draw Upper Penn Unit," or Unit Agreement, submitted as Exhibit No. 3, and "Unit Operating Agreement," submitted as Exhibit 5, are hereby incorporated by reference into this order.

PROVIDED HOWEVER Section 13, "Tract Participation", on page 5 of the Unit Agreement is hereby amended to correctly provide:

*"A = the Area Ratio based on the ratio of the total acreage within the Tract divided by the total acreage within the Unit Area."*

(5) This order shall not become effective unless and until the required statutory minimum percentage of interest owners (seventy-five percent of the working interest and seventy-five percent of the non-cost bearing interest, see NMSA 1978 Sections 70-7-8, as amended) in the Unit Area have ratified the Unit Agreement and the Unit Operating Agreement in writing.

(6) Applicant as Unit operator shall notify in writing the Division Director of any removal or substitution of said Unit operator by any other working interest owner within the Unit Area.

(7) The Unit established herein shall terminate upon the plugging and abandonment of the last well completed in the North Dagger Draw-Upper Pennsylvanian Pool within the Unit Area.

IT IS FURTHER ORDERED THAT:

(8) Yates is hereby authorized to institute a waterflood project in its North Dagger Draw Upper Pennsylvanian Unit Area by the injection of produced water into the North Dagger Draw-Upper Pennsylvanian Pool through the five following described existing wells to be converted from producing oil wells to injection wells.

API No.	Well Name and Number	ULSTR	Footage Location	Injection Interval/Perforations (feet)
30-015-26937	Ross "EG" Federal Com. #5	A-19-19S-25E	860' FN & EL	7,725 - 7,908
30-015-27053	Ross "EG" Federal Com. #12	H-19-19S-25E	1980' FNL & 660' FEL	7,740 - 7,882
30-015-26949	Ross "EG" Federal Com. #9	I-19-19S-25E	1980' FSL & 660' FEL	7,718 - 7,896
30-015-27689	Dagger Draw "30-N" Com. #15	A-30-19S-25E	660' FN & EL	7,620 - 7,826
30-015-27378	Dagger Draw "30-N" Com. #17	H-30-19S-25E	1655' FNL & 660' FEL	7,654 - 7,827

(9) As proposed by Yates, no fresh water shall be used as make-up water or otherwise injected.

(10) The secondary recovery project herein authorized shall is hereby designated the ***"North Dagger Draw Upper Pennsylvanian Unit Waterflood Project."***

(11) 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.

(12) Injection into each of the five wells described in Ordering Paragraph No. (8) above shall be accomplished through 2-7/8 inch internally plastic-coated tubing installed in a seal bore assembly 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.

(13) The injection wells or pressurization system shall be equipped with a pressure limiting devise or acceptable substitute that will restrict the surface injection pressure to no more than 1,520 psig or 0.2 psig per foot of depth to the uppermost perforation in the injection well, whichever is less.

(14) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(15) The Division Director may administratively authorize additional wells for

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injection purposes within the Unit Area as provided in Division Rule 701.F (3).

(16) 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 seal bore assembly setting depth, to assure the integrity of such casing.

(17) The operator shall give advance notification 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.

(18) The applicant shall immediately notify the supervisor of the Artesia District Office of the Division of the failure of the tubing, casing or seal bore assembly 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 are, and shall take such steps as may be timely and necessary to correct such failure or leakage.

(19) The applicant shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(20) The injection authority granted herein for each of the five wells identified in Ordering Paragraph No. (8) above 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.

**FURTHERMORE:**

(21) The above-described North Dagger Draw Upper Pennsylvanian Unit Waterflood Project is hereby approved as an Enhanced Oil Recovery Project ("EOR") pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5).

(22) The approved "project area" shall initially comprise the entire North Dagger Draw Upper Pennsylvanian Unit, described in Ordering Paragraph No. (2) above; PROVIDED HOWEVER THAT; (i) the Phase I area of the waterflood project, to include that portion of the Unit Area in Sections 18, 19, 20, and 30, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, and the Phase II area of the waterflood project, to include Sections 2 16, 17, 21, 28, and 29, all in Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, may be independently certified by the Division to the New Mexico Taxation and Revenue Department; and (ii) both areas and/or the producing wells eligible for the EOR tax rate may be contracted and reduced based upon the evidence presented by the Unit operator in its demonstration of a positive production response.

(23) To be eligible for the EOR tax rate, the Unit operator shall advise the Division of the date and time water injection commences into the Phase I and Phase II areas of the project and at such time(s), request the Division certify Phase I and II to the New Mexico Department of Taxation and Revenue.

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

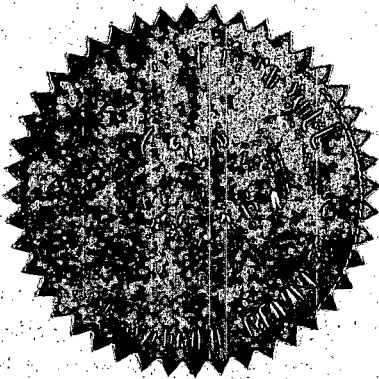
(25) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P. E.  
Director



SEAL