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July 26, 1996

HAND DELIVERED

Michael E. Stogner Chief Hearing Examiner Oil Conservation Division New Mexico Department of Energy, Minerals and Natural Resources 2040 South Pacheco Street Santa Fe, New Mexico 87505

> Re: Case 11525: Application of Yates Petroleum Corporation for amendment of the Special Pool Rules and Regulations for the North Dagger Draw-Upper Pennsylvanian Pool and for cancellation of overproduction, Eddy County, New Mexico

Case 11526: Application of Yates Petroleum Corporation for amendment of the Special Pool Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool and for cancellation of overproduction, Eddy County, New Mexico

Dear Mr. Stogner:

Pursuant to your request of July 25, 1996, I am enclosing proposed orders in each of the above referenced cases for Yates Petroleum Corporation.

If you need anything further from Yates to assist with you consideration of these applications, please advise.

Very truly yours,

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WILLIAM F. CARR

cc: Randy Patterson (w/enc.) W. Thomas Kellahin, Esq. (w/enc.)

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 AMENDMENT OF THE SPECIAL POOL RULES AND REGULATIONS FOR THE SOUTH DAGGER DRAW-UPPER PENNSYLVANIAN ASSOCIATED POOL AND FOR CANCELLATION OF OVERPRODUCTION, EDDY COUNTY, NEW MEXICO

CASE NO. 11526 ORDER NO. R-

PROPOSED ORDER OF THE DIVISION OF <u>YATES PETROLEUM CORPORATION</u>

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 2, 1996 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of July, 1996, the Division Director, having considered the testimony, the recorded 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) At the time of hearing Division Case Nos. 11525 and 11526 were consolidated for the purpose of testimony.

(3) The South Dagger Draw-Upper Pennsylvanian Associated Pool is operated pursuant to Special Pool Rules and Regulations adopted and from time to time amended by Division Order Nos. R-5353 dated February 1, 1977, R-5353-L dated November 11, 1990, R-5353-L-1 dated April 1, 1991, and R-5353-L-2 dated December 17, 1992.

(4) The Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool provide for 320-acre spacing units (Rule 2(a)), and for a special depth bracket allowable of 1,400 barrels of oil per 320-acre proration unit (Rule 22).

(5) The pool boundaries for the South Dagger Draw-Upper Pennsylvanian Associated Pool are presently described as follows:

TOWNSHIP 20 SOUTH, RANGE 24 EAST, NMPM

Section 9:	E/2
Section 10:	S/2
Section 11:	S/2
Section 12:	S/2
Sections 13, 14, 15:	All
Section 16:	E/2
Sections 22 through 26:	All
Section 34:	E/2
Section 35:	All
Section 36:	SE/4

TOWNSHIP 20 1/2 SOUTH, RANGE 23 EAST, NMPM

Irregular Section 35:	All
Section 36:	All

TOWNSHIP 21 SOUTH, RANGE 23 EAST, NMPM

Sections 1 and 2:	All
Sections 11 and 12:	All
Section 14:	All

(6) The applicant, Yates Petroleum Corporation ("Yates"), seeks the amendment of the Special Pool Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool to provide for a special depth bracket allowable of 8000 barrels of oil per day for each 320-acre proration unit and the cancellation of all overproduction in this pool on the effective date of the amended depth bracket allowable.

(7) Nearburg Exploration Company appeared in support of the amendment. Conoco Inc. ("Conoco") appeared at the hearing in opposition to the proposed amendment. James T. Jennings, Marathon Oil Company, and Mewbourne Oil Company also appeared through legal counsel but did not present evidence.

(8) Certain wells recently completed in the South Dagger Draw-Upper Pennsylvanian Associated Pool initially produced at high rates and, unlike wells drilled earlier in the life of this reservoir, have not experienced a rapid decline in production rates. (Testimony of Fant, Tr. 21).

(9) This production characteristic became apparent during the summer of 1996 at which time representatives of Yates met with the Division's District Supervisor in Artesia to review this matter and the overproduction being accumulated by these wells. (Testimony of Fant, Tr. 22).

(10) During the spring of 1996 another meeting was held with the Division's District Supervisor in Artesia at which time Yates agreed to curtail the production from its wells in the overproduced proration units, and file an application to change the allowable limits in this reservoir and to address the overproduced status of wells in this pool. (Testimony of Fant, Tr. 22 and 23).

(11) The evidence presented by Yates established that:

- a. Wells in this pool produce large volumes of water. (Testimony of Fant, Tr. 25-37);
- b. Higher production rates result in higher oil cuts and the greater ultimate recovery of oil. (Yates Exhibits 4 and 5, Testimony of Fant, Tr. 28);
- c. 95% of the wells in the reservoir show high oil cuts at high production rates. (Yates Exhibit 6, Testimony of Fant, Tr. 33);
- d. Higher producing rates are more efficient and result in lower gas/oil ratios in 75% of the wells in this reservoir. (Yates Exhibits 6 and 8, (Testimony of Fant, Tr. 34, 38 and 39);
- e. Most of the oil being produced from the overproduced wells is new oil that could not be produced by existing wells in the pool. (Testimony of Fant, Tr. 45);
- f. A depth bracket allowable of 8,000 barrels of oil per day per 320-acre proration unit is necessary to avoid the curtailment of production from the wells in the pool and the resulting permanent loss of oil thereby causing waste. (Testimony of Fant, Tr. 46-48).

(12) Conoco's engineering witness agreed that maximizing oil cuts and reducing oil/gas ratios was important to the efficient production of oil from this reservoir but recommended that overproduced wells be shut in until all overproduction is made up without concern for what is needed to efficiently produce this reservoir. (Testimony of Beamer, Tr pp. 172 and 174).

(13) To prevent the waste of oil, the depth bracket allowable for the South Dagger Draw-Upper Pennsylvanian Associated Pool should be increased to 8,000 barrels of oil per day per 320-acre proration unit.

(14) Yates' evidence demonstrated that shutting in wells or cycling production to

make up overproduction will result in the permanent loss of oil and that curtailment of production from these wells will result in the permanent loss of oil thereby causing waste. (Testimony of Fant, Tr. 34-37, 48-52).

(15) The cancellation of all overproduction in the South Dagger Draw-Upper Pennsylvanian Associated Pool on the date the 8,000 BOPD depth bracket allowable becomes effective will prevent waste and should be approved.

(16) Conoco's geological witness had not studied the South Dagger Draw-Upper Pennsylvanian Associated Pool (Testimony of Hardie, Tr. 147), but expressed concern about the possible impact of overproduced wells on the correlative rights of operators in the pool but stated that further study was needed and that a volumetric calculation across the area is necessary to determine if the overproduction is causing damage to the point that wells need to be shut in. (Testimony of Hardie, Tr. 150-151). Conoco's engineering witness also stated he had not made an interference analysis of the reservoir. (Testimony of Beamer, Tr. 168).

(17) Yates interference data established that correlative rights will not be impaired by increasing the depth bracket allowable for this pool to 8,000 barrels of oil per day per 320-acre proration unit and cancelling all overproduction in the pool for:

- a. Interference between wells in the overproduced portion of the reservoir occurs less than 5% of the time (Yates Exhibit 10, Testimony of Fant, Tr. 41-45); and
- b. Only 1% of the production from the reservoir is impacted by this interference (Yates Exhibits 9 and 10, Testimony of Fant, Tr. 45).

(18) Approval of a special depth bracket allowable for the South Dagger Draw-Upper Pennsylvanian Pool of 8,000 barrels of oil per 320-acre proration unit and the cancellation of all overproduction in this pool on the effective date of this amended allowable, will afford the applicant and other operators in the subject pool the opportunity to produce their share of the oil and gas within this pool, will allow additional recovery of oil thereby preventing waste, and will protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) That effective August 1, 1996, the depth bracket allowable for the South Dagger Draw-Upper Pennsylvanian Associated Pool, Eddy County, New Mexico shall be 8,000 barrels of oil per 320-acre proration unit and that on that date all overproduction in this pool shall be cancelled.

(2) Jurisdiction or 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 hereinbefore designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY DIRECTOR

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