# 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:

NOMENCLATURE CASE NO. 10748 Order No. R-9922

APPLICATION OF YATES PETROLEUM CORPORATION FOR POOL CREATION, CLASSIFICATION OF THE NEW POOL AS AN ASSOCIATED POOL AND FOR SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

#### **ORDER OF THE DIVISION**

#### **BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on June 17, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of July, 1993, 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, Yates Petroleum Corporation, seeks the creation of a new associated pool for the production of oil and gas from the Upper Pennsylvanian formation comprising the W/2 of Section 17, Township 22 South, Range 24 East, NMPM, Eddy County, New Mexico.

(3) The applicant further seeks the promulgation of temporary special rules and regulations including 320-acre oil and gas spacing, designated well location requirements, a limit of no more than one well per quarter section, a special depth bracket allowable of 1400 barrels of oil per day per standard proration unit and an administrative procedure for approval of unorthodox well locations and non-standard spacing and proration units.

(4) At the time of the hearing the applicant requested that the portion of its request for an administrative procedure for obtaining approval for unorthodox well locations and non-standard spacing and proration units be <u>dismissed</u>.

(5) Nearburg Producing Company (Nearburg), a leasehold operator in this area, appeared at the hearing in support of Yates' application with the exception of the request to limit the well density to one well per quarter section. In addition, Santa Fe Energy Operating Partners, L.P. and Marathon Oil Company appeared through counsel at the hearing but did not present evidence or testimony nor did they protest the application.

(6) On October 15, 1992 the applicant commenced re-entry operations on its Hickory "ALV" Federal Well No. 1 (previously the Pan American Petroleum Corporation I. T. Hollowell "A" USA No. 1) located 1650 feet from the North and West lines (Unit F) of Section 17, Township 22 South, Range 24 East, NMPM, Eddy County, New Mexico. The subject well has been completed in the Canyon formation through the perforated interval from approximately 8,139 feet to 8,259 feet.

(7) According to applicant's evidence and testimony, the Hickory "ALV" Federal Well No. 1 was tested in the Canyon formation on June 15, 1992 at a rate of 408 BOPD, 1,197 BWPD and 511 MCFGD.

(8) The subject well is located approximately 10 miles south of the South Dagger Draw-Upper Pennsylvanian Associated Pool and directly adjacent to the Indian Basin-Upper Pennsylvanian Gas Pool.

(9) The applicant's geologic evidence and testimony in this case indicates that:

a) the Hickory "ALV" Federal Well No. 1 is producing from the same Dolomite section, albeit structurally lower, being produced in the Indian Basin-Upper Pennsylvanian Gas Pool;

b) the Dolomite section in the Hickory "ALV" Federal Well No. 1 exhibits similar geologic characteristics to the Dolomite section being produced in the North and South Dagger Draw-Upper Pennsylvanian Pools;

c) the subject reservoir will likely ultimately be determined to be a separate "oil leg" of the Indian Basin-Upper Pennsylvanian Gas Pool <u>or</u> an extension of the South Dagger Draw-Upper Pennsylvanian Associated Pool.

(10) The engineering evidence and testimony in this case indicates that the oil being produced in the Hickory "ALV" Federal Well No. 1, having a gravity of approximately 42 degrees, is similar to that being produced in the North and South Dagger Draw-Upper Pennsylvanian Pools. The gravity of oil being produced in the Indian Basin-Upper Pennsylvanian Gas Pool ranges from 58-60 degrees.

(11) The evidence currently available regarding the subject reservoir indicates that a new associated pool for the production of oil and gas from the Upper Pennsylvanian formation should be created and designated the Indian Basin-Upper Pennsylvanian Associated Pool, with horizontal limits comprising the W/2 of Section 17, Township 22 South, Range 24 East, NMPM, Eddy County, New Mexico.

(12) The applicant contends that the similarities between the subject reservoir and the North and South Dagger Draw-Upper Pennsylvanian Pools are sufficient to justify the promulgation of special rules and regulations similar to those currently governing these pools.

(13) The North Dagger Draw-Upper Pennsylvanian Pool is currently governed by Special Rules and Regulations as promulgated by Division Order No. R-4691, as amended, and Order No. R-5565, which require 160-acre spacing with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, an oil allowable of 700 barrels per day, and a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil.

(14) The South Dagger Draw-Upper Pennsylvanian Associated Pool is currently governed by Special Rules and Regulations as promulgated by Division Order No. R-5353, as amended, which require 320-acre oil or gas spacing with wells to be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary, an oil allowable of 1400 barrels per day, and a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil.

(15) The Special Rules and Regulations for the North and South Dagger Draw-Upper Pennsylvanian Pools do not prohibit the drilling of more than one well on a standard proration unit.

(16) In support of its request to limit the well density to one well per quarter section, the applicant testified that the Hickory "ALV" Federal Well No. 1, based upon analogies to wells in the South Dagger Draw-Upper Pennsylvanian Associated Pool, should be capable of draining an area of approximately 80-100 acres.

(17) Without a limitation on well density, the South Dagger Draw-Upper Pennsylvanian Associated Pool has been developed on 40-acre well spacing, which, according to the applicant, is too dense for this type of reservoir. (18) Nearburg requested that the proposed pool rules contain a rule similar to Rule No. 22 of the Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool which states that all or part of the 1400 BOPD allowable may be produced by a single well or by two or more wells on a standard proration unit.

(19) Nearburg has the opportunity, during the period when temporary special rules and regulations are in place for the subject reservoir, to acquire drainage data and reopen this case in order to present evidence and testimony to support its request.

(20) In the absence of compelling evidence to support denser well spacing, and in order to prevent the drilling of unnecessary wells, the Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool should provide for 320-acre well spacing with no more than two wells per standard unit.

(21) The applicant requested an oil allowable of 1400 barrels per day per standard proration unit and a gas-oil ratio limitation of 2,000 cubic feet of gas per barrel of oil. Applicant's requested oil allowable is based upon:

a) a similar oil allowable currently in effect for both the North and South Dagger Draw-Upper Pennsylvanian Pools, and,

b) a gas well in the subject reservoir being able to effectively compete with gas wells in the Indian Basin-Upper Pennsylvanian Gas Pool, whose gas allowable has stabilized, according to the applicant, at approximately 5.5 MMCFGD.

(22) The oil allowable currently in effect for the North and South Dagger Draw-Upper Pennsylvanian Pools was established by the Division, at least in part, in order to provide an incentive to operators to drill additional wells. In addition, there is no evidence at the current time to indicate that the proposed allowable will not cause excessive waste of reservoir energy, thereby resulting in decreased ultimate oil recovery.

(23) The Indian Basin-Upper Pennsylvanian Associated Pool should be assigned an oil allowable equal to the depth bracket allowable of 470 barrels of oil per day per 160-acre tract, or 940 BOPD.

(24) Temporary Special Rules and Regulations should be promulgated for the Indian Basin-Upper Pennsylvanian Associated Pool for a period of eighteen months. These rules should provide for 320-acre oil and gas spacing and proration units, a limitation of one well per quarter section, designated well location requirements, an oil allowable of 940 barrels of oil per day per standard proration unit and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(25) This case should be reopened at an examiner hearing in January, 1995 at which time the operators in the subject pool should be prepared to appear and present evidence and testimony regarding the nature of the subject reservoir, the appropriate well spacing, and an appropriate oil allowable.

## **IT IS THEREFORE ORDERED THAT:**

(1) A new associated pool for the production of oil and gas from the Upper Pennsylvanian formation is hereby created and designated the Indian Basin-Upper Pennsylvanian Associated Pool with horizontal limits comprising the W/2 of Section 17, Township 22 South, Range 24 East, NMPM, Eddy County, New Mexico.

(2) The Indian Basin-Upper Pennsylvanian Associated Pool is hereby classified as an associated oil and gas pool and shall be operated in accordance with the General Rules and Regulations for the Associated Oil and Gas Pools of Northwest and Southeast New Mexico unless these general rules are in conflict with the Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool hereinafter promulgated in which case the provisions of the special rules and regulations shall apply.

(3) Temporary Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool are hereby promulgated as follows:

# SPECIAL RULES AND REGULATIONS FOR THE INDIAN BASIN-UPPER PENNSYLVANIAN ASSOCIATED POOL

<u>RULE 2</u>. (a) A standard oil proration unit shall comprise 320 acres. A standard gas proration unit shall comprise 320 acres.

<u>RULE 2</u>. (b) Each well shall be located no closer than 660 feet from the outer boundary of the proration unit nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary. No more than one well per quarter section shall be permitted on a proration unit.

<u>RULE 22</u>. The special depth bracket allowable for a 320-acre proration unit shall be 940 barrels of oil per day. All or any part of the allowable may be produced by a single well or by two wells on the unit. However, total oil allowable assigned to a 320acre unit shall not exceed 940 barrels per day.

## IT IS FURTHER ORDERED THAT:

(4) The location of all wells presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool or in the Upper Pennsylvanian formation within one mile thereof are hereby approved; the operator of any well having an unorthodox location shall notify the Artesia District Office of the Division in writing of the name and location of the well within 30 days from the date of this order.

(5) Pursuant to Paragraph A of Section 70-2-18, N.M.S.A. 1978 Comp., contained in Laws of 1969, Chapter 271, existing oil and gas wells in the Indian Basin-Upper Pennsylvanian Associated Pool shall have dedicated thereto 320 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable until a non-standard spacing unit has been approved and, subject to said 60-day limitation, each well presently drilling to or completed in the Indian Basin-Upper Pennsylvanian Associated Pool or in its corresponding vertical limits, or within one mile thereof, shall receive no more than one-fourth of a standard allowable for said pool.

(6) This case shall be reopened at an examiner hearing in January, 1995, at which time the operators in the subject pool may appear and show cause why the Temporary Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool promulgated herein should not be rescinded.

(7) Jurisdiction 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 WILLIAM J. LEMAY Director

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