# STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 11798 (DE NOVO) ORDER NO. R-10823-A

APPLICATION OF COLLINS & WARE, INC. FOR SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on August 14, 1997 at Santa Fe, New Mexico, before the Oil Conservation Commission of the State of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 30th day of October, 1997, the Commission, a quorum being present, having considered the record and being fully advised in the premises.

#### **FINDS THAT**:

- (1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Collins & Ware, Inc., seeks the promulgation of permanent special rules and regulations for the East Warren-Tubb Pool, Lea County. New Mexico, including the adoption of a special limiting gas-oil ratio for the pool of 6.000 cubic feet of gas per barrel of oil.
- (3) The East Warren-Tubb Pool currently comprises the following described acreage in Lea County, New Mexico:

#### TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM

Section 23: S/2, NE/4
Section 24: SW/4
Section 25: W/2, NE/4
Section 36: NW/4

(4) The East Warren-Tubb Pool was created by Order No. R-9467 on March 15, 1991. The pool was originally classified as a Tubb gas pool, however, by Order No. R-10776 dated February 28, 1997, the pool was reclassified as an oil pool.

- (5) The East Warren-Tubb Pool is currently governed by Division Statewide Rules and Regulations, which include 40-acre spacing, an oil allowable of 142 barrels per day, a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil, and a casinghead gas limit of 284 MCF per day.
- (6) The East Warren-Tubb Pool is directly east of and adjacent to the Warren Blinebry-Tubb Oil and Gas Pool. This pool was created by Division Order No. R-9467, and was consolidated from portions of the Blinebry Oil and Gas Pool and Warren-Tubb Gas Pool. The pool was created for the purpose of allowing the simultaneous conductance of secondary recovery operations within the Blinebry and Tubb formations.
- (7) Pursuant to Division Rule No. 701. G. (4), the Warren Blinebry-Tubb Oil and Gas Pool is not currently subject to an oil or gas producing allowable. and is not subject to a limiting gas-oil ratio.
- (8) There are approximately *nine* active producing wells within the East Warren-Tubb Pool operated by *four* different operators. (See Collins & Ware, Inc. Exhibit No. 10).
- (9) The applicant has recently drilled and completed its Payday Well No. 1 and its M & M Well No. 1, located respectively, in Units L and E of Section 24. The Payday Well No. 1 first produced on March 1, 1997 at an initial gas-oil ratio of 4655. The M & M Well No. 1 first produced on March 23, 1997 with a gas-oil ratio on a one day test conducted on June 5, 1997 of 12496.
- (10) In support of its application, the applicant presented geological evidence which characterized the Tubb reservoir as a non homogeneous, vertically separated reservoir which is continuous throughout the East Warren-Tubb Pool with substantial porosity variations from well to well. Applicant presented a structure map and three cross sections which further showed the continuity of the Tubb reservoir between the East Warren-Tubb Pool and the offsetting Warren Blinebry-Tubb Oil and Gas Pool and that the Tubb formation constitutes one single common source of supply. (See, Testimony of Moylett; Collins & Ware, Inc. Exhibits 2 through 6)
- (11) The Oil Conservation Division's District I Geologist in Hobbs, New Mexico, reviewed the information available on these pools and wrote the Commission supporting an increase in the gas-oil ratio limit for the East Warren-Tubb Pool. In his letter he stated that the Tubb and Blinebry reservoirs are continuous reservoirs across this area and that a 2,000 to 1 gas-oil ratio impairs the correlative rights of interest owners in this pool. (Collins & Ware, Inc. Exhibit No. 8)

- (12) Applicant's engineering testimony showed that:
  - a) tabulated gas-oil ratios for the East Warren-Tubb Pool vary but are generally in excess of 2,000 to 1 (Collins & Ware, Inc. Exhibit Nos. 9 and 10);
  - b) the East Warren-Tubb Pool is a solution-gas-drive reservoir which is not rate sensitive to higher producing rates and can be produced at high rates without wasting reservoir energy (Testimony of Lowery, Collins & Ware, Inc. Exhibit Nos. 7 and 11);
  - c) producing wells under a 2,000 to 1 gas-oil ratio will result in oil being left in the ground that cannot be economically produced at a later date thereby causing waste (Testimony of Lowery, Collins & Ware, Inc. Exhibit No. 12); and
  - d) wells within the East Warren-Tubb Pool produce from vertically separated intervals, some of which are gas producing (Testimony of Lowery).
- (13) The evidence presented establishes that approval of the application of Collins & Ware, Inc. for a gas-oil ratio of 6,000 cubic feet of gas per barrel of oil for the East Warren-Tubb Pool will prevent the waste of reservoir energy, will increase the ultimate recovery of oil from this pool, is necessary to protect the correlative rights of the interest owners in this pool and that the application should be **granted**.

#### IT IS THEREFORE ORDERED THAT:

- (1) The application of Collins & Ware, Inc. for special pool rules providing for an increased gas-oil ratio limit for the East Warren-Tubb Pool, Lea County, New Mexico, is hereby approved.
  - (2) Permanent Special Rules for said pool are hereby promulgated as follows:

### SPECIAL RULES AND REGULATIONS FOR THE EAST WARREN-TUBB POOL

Rule 1: The limiting gas-oil ratio for the East Warren-Tubb Pool shall be 6,000 cubic feet of gas per barrel of oil produced.

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

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

## STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JAMI BAILEY, Member

Bill Mein

WILLIAM W. WEISS, Member

WILLIAM J. LEMAY. Chairman

