

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:

RECEIVED
SEP 17 1996
Oil Conservation Division

CASE NO. 11525
Order No. R-4691-E

APPLICATION OF YATES PETROLEUM CORPORATION
FOR AMENDMENT OF THE SPECIAL RULES
AND REGULATIONS FOR THE NORTH DAGGER
DRAW-UPPER PENNSYLVANIAN POOL, AND FOR
THE CANCELLATION OF OVERPRODUCTION,
EDDY COUNTY, NEW MEXICO.

CONCO INC.'S
PRE-HEARING STATEMENT

This Pre-hearing statement is submitted on behalf of Conoco Inc.

APPEARANCE OF PARTIES

APPLICANT

ATTORNEY

Yates Petroleum Corporation

William F. Carr, Esq.

OPPONENT

ATTORNEY

Conoco Inc.

W. Thomas Kellahin

CONOCO'S STATEMENT OF THE CASE

(1) On August 14, 1996, the Division entered Order R-4691-E & R-5353-L-2 which denied Yates Petroleum Corporation ("Yates") request:

- (a) to amend the Special Rules and Regulations for the North Dagger Draw-Upper Pennsylvanian Associated Pool ("the North Dagger Draw Pool") by increasing the current 700 barrels of oil per day special depth bracket allowable assigned to a standard 160-acre spacing and proration unit to 4,000 barrels of oil per day; and**
- (b) to cancel all overproduction accumulated by Yates and other operators in the pool who have produced certain oil proration and spacing units in excess of the current allowable of 700 barrels of oil per day.**

(2) The Division order also required:

- (a) Yates and any other operator with overproduction to commence making up that over production at a rate not to exceed 350 BOPD per 160-acre spacing unit**
- (b) and to have eliminated all overproduction within 18 month from August 15, 1996.**

(3) Yates has appealed that decision to the Commission for a DeNovo hearing.

OVERPRODUCTION WITHIN ALLOWABLE VIOLATION AREA

(4) From February 23, 1995 to March 22, 1995, Yates proposed 39 North Dagger Draw wells to Nearburg Exploration Company ("Nearburg") and commenced a "drilling and production war" against Nearburg (See NMOCD Case 11311, Nearburg Exhibit 5) within an approximately six section area within North Dagger Draw, identified as the "Allowable Violation Area" consisting of portions of Sections 8, 9, 21, 28 and 29, T19S, R35E, NMPM, during which Yates consistently exceeded the oil allowables which resulted in the following levels of overproduction:

| OPERATOR | SPACING UNIT | OVER PRODUCTION | DATE |
|-----------------|---------------------|-------------------------|-------------|
| Yates | NW/4-21 | 7,594 | 2/1/96 |
| Yates | SW/4-21 | 83,236 | 2/1/96 |
| Yates | SE/4-21 | 53,531 | 2/1/96 |
| Yates | NW/4-29 | 11,884 | 2/1/96 |
| Yates | NE/4-29 | 60,729 | 2/1/96 |
| Yates | SW/4-29 | 70,641 | 2/1/96 |
| Yates | SE/4-29 | 132,351 | 2/1/96 |
| Yates | NW/4-28 | 108,594 | 2/1/96 |
| Yates | NE/4-28 | 136,167 | 2/1/96 |
| Yates | SW/4-28 | 117,283 | 2/1/96 |
| Yates | SE/4-28 | 206,187 | 2/1/96 |
| Yates | | 988,197 total | |
| Nearburg | NW/4-27 | 132,560 | 3/1/96 |
| Nearburg | SW/4-27 | 32,038 | 3/1/96 |
| | | 164,598 total | |
| | | TOTAL: 1,152,795 | |

BACKGROUND

(5) North Dagger Draw Pool is the northern-most pool of an extensive dolomite fairway hydrocarbon reservoir in Eddy County, New Mexico, currently subdivided into three pools:

(a) the northern-most portion, which is structurally the lowest part of this extensive continuous dolomite reservoir, is classified as an oil pool and is designated as the "North Dagger Draw Upper Pennsylvanian Oil Pool."

(b) the middle portion of this continuous reservoir declines structurally from southwest to northeast and represents an extensive transition area from the gas pool to the south (Indian Basin) and the oil pool to the north (North Dagger Draw). This transitional area is classified as an associated oil-gas pool and is designated as the "South Dagger Draw-Upper Pennsylvanian Associated Pool."

(c) the southern portion of which is structurally the highest and is classified as a gas pool being designated as the "Indian Basin Upper Pennsylvanian Gas Pool."

CURRENT RULES FOR THESE RESERVOIRS

(6) The current rules for the North Dagger Draw Oil Pool provide for 160-acre spacing and proration units with the option for multiple oil wells in a single such unit. The current maximum oil allowable for the North Dagger Draw Pool provides for top oil allowable of 700 BOPD. The current maximum gas allowable provides for 7,000 MCFPD per 160-acre spacing unit (GOR of 10,000 to 1 times the top oil allowable of 700 BOPD).

(7) The current rules for the South Dagger Draw Pool provide for 320-acre proration and spacing units with the option for multiple oil wells and multiple gas wells and allow the simultaneous dedication of both oil and gas wells to the same unit. See Order R-5353-L-1. The

current maximum oil allowable of 1,400 BPOD for the South Dagger Draw Pool provides for 9,800 MCFPD per 320-acre spacing unit (GOR of 7,000 to 1 times the top oil allowable of 1,400 BOPD).

(8) The current rules for the Indian Basin Upper Penn Gas Pool provide for 640-acre gas spacing and proration units with the option for multiple gas wells in a single such unit with a current MAXIMUM GAS ALLOWABLE for this prorated gas pool of 6,000 MCFPD per 640-acre gas spacing and proration unit.

**PRIOR DIVISION DECISIONS
AFFECTING NORTH DAGGER DRAW**

(9) On December 11, 1973, Division Order R-4691 was issued which established 320-acre spacing for the pool and a special depth bracket oil allowable of 427 BOPD.

(10) On February 3, 1976, Division Order R-4691-A was issued which changed the spacing to 160-acres and reduced the oil allowable to 267 BOPD

(11) On October 12, 1976, Division Order R-4691-B was issued which left the spacing unchanged but increased the oil allowable to 350 BOPD.

(12) On March 15, 1977, Division Order R-4691-C was issued which made these rules permanent.

(13) On November 1, 1977, Division Order R-5565 was issued which changed the 2,000 to 1 gas-oil ratio to 10,000 cubic feet of gas per barrel of oil.

(14) On March 21, 1991, Division Order R-4691-C was issued which increased the oil allowable to 700 BOPD.

NORTH DAGGER DRAW POOL

CONOCO'S PROPOSED EVIDENCE:

(15) Conco will demonstrate from its geologic and reservoir engineering presentations that:

(a) the North Dagger Draw Pool is an oil pool which also produces significant amount of water along a structural axis oriented northeast to southwest consisting of brittle, vugular dolomite with good vertical permeability with the eastern edge of the reservoir being down structure and the western edge being upstructure;

(b) the dolomite is thickest along the top of the structure and thins to the southeast through the "Allowable Violation Area" due to the development of non-productive limestone stringers;

(c) this combination of vugs, fractures and vertical permeability provide the necessary flow channels to permit good pressure communication within North Dagger Draw which is evidenced by the fact new wells will encounter 800 to 1000 psi less than original reservoir pressure;

(d) the withdrawal of reservoir fluids have caused pressure declines throughout North Dagger Draw Pool;

(e) there is consistent hydraulic connections and good pressure communication across the pool.

YATES HAS CAUSED PERMANENT DAMAGE

(16) Conoco will further demonstrate that:

(a) there is a significant risk of offset drainage among wells in and within the Allowable Violation Area because

the oil productive dolomite is relatively thin and any excessive pressure depletion occurring due to overproduction will have a detrimental effect on wells such as the Conoco operated wells in the N/2 of Section 32, T19S, R35E which are located on the flank of the reservoir.

(b) Yates is accelerating the rate of recovery of the same amount of ultimate oil.

(c) increasing the oil rate will simply increase the rate at which the high capacity wells will be "taking" oil from adjoining wells and spacing units.

(d) Yates should not be excused from liability for "overproducing" either pool's allowables.

(e) Yates' request is simply the result of Yates having drilled too many wells and produced them at too high a rate in an effort to drain offsetting spacing units.

(f) As a result of Yates' excessive pressure depletion of the reservoir which now cannot be restored, Yates has caused permanent damage to the correlative rights of those operators who have complied with these rules.

ILLEGAL OIL and GAS

(17) Pursuant to Section 70-2-21 and 70-2-22 NMSA (1978), and its authority to adopt rules and regulations to effectuate prohibitions against the purchase or handling of "illegal gas and oil products", the Division has adopted rules and regulations which provide that:

(a) Illegal gas is defined by Division Rules to mean "natural gas produced from a gas well in excess of the allowable determined by the Division and the sale, purchase, acquisition, or the transporting refining processing or handling, in any way of said gas is prohibited. See Rule 0.1. and Rule 901

