

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE 8950
Order No. R-6469-D

IN THE MATTER OF CASE 8950 BEING REOPENED PURSUANT TO THE
PROVISIONS OF COMMISSION ORDERS NOS. R-6469-C AND R-3401-A, AS
AMENDED, WHICH ORDER PROMULGATED A TEMPORARY ALLOWABLE AND
LIMITING GAS-OIL RATIO FOR THE WEST PUERTO CHIQUITO-MANCOS OIL
POOL IN RIO ARRIBA COUNTY.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing on March 30 and 31, and
April 1, 2, and 3, 1987 at Santa Fe, New Mexico before the Oil
Conservation Commission of New Mexico, hereinafter referred to
as the "Commission."

NOW, on this 8th day of June, 1987 the Commission, a
quorum being present, having considered the testimony presented
and the exhibits received at said hearing 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) At the time of hearing, Cases 7980, 8946, 8950, 9113
and 9114 were consolidated for purposes of testimony.
- (3) Cases 8950 involves re-opening the matter of
temporary reduction of allowable and gas/oil ratio limit under
Order R-6469-C/R-3401-A pertaining to the West Puerto Chiquito-
Mancos Oil Pool.
- (4) Case 9113 involves a proposal to abolish the
Gavilan-Mancos Oil Pool and consolidate that pool into the West
Puerto Chiquito-Mancos Oil Pool and Case 9114 involves a
proposal to shift the boundary between Gavilan-Mancos and West
Puerto Chiquito-Mancos Oil Pool.

(5) The evidence shows that there is limited pressure communication between the two designated pools, and that there are two weakly connected areas separated by some restriction at or near the common boundary of the two designated pools.

(6) The evidence shows there are three principal productive zones in the Mancos formation in both presently designated pools, designated A, B, and C zones listed from top to bottom and that, while all three zones are productive in both designated pools, West Puerto Chiquito produces primarily from the C zone and Gavilan produces chiefly from the A and B zone.

(7) It is clear from the evidence that there is natural fracture communication between zones A and B but that natural fracture communication is minor or non-existent between zones B and C.

(8) Interference tests indicate: 1) a high degree of communication between certain wells, 2) the ability of certain wells to economically and efficiently drain a large area of at least 640 acres; and 3) the probability exists that the better wells recover oil from adjacent tracts and even more distant tracts if such tracts have wells which were less successful in connecting with the major fracture system.

(9) There is conflicting testimony as to whether the reservoir is rate-sensitive and the Commission should act to order the operators in West Puerto Chiquito and Gavilan-Mancos pools to collect additional data during 90-day periods of increased and decreased allowables and limiting gas-oil ratios.

(10) Estimates of the amount of time required to deplete the Gavilan Pool at current producing rates varied from 33 months to approximately five years from hearing date.

(11) An allowable of 1280 barrels per day is based upon an extension of the depth bracket allowable table and should be the allowable for a 640-acre proration unit for a period of 90 days with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(12) The Oil Conservation Commission and their staff will evaluate the data collected, or contract to have the data evaluated, to ascertain whether the 1280 BOPD allowable and 2,000 to 1 limiting GOR will cause waste and/or provide a mechanism for confiscation of oil and gas through drainage via the highly transmissive fracture system.

(13) After the initial 90-day period ends, the allowable should be reduced to 800 BOPD per 640 acres with a limiting GOR of 600 cubic feet of gas per barrel of oil.

(14) The West Puerto Chiquito-Mancos Pool is dominated by the Canada Ojitos Unit on which a pressure maintenance program has been in progress since 1968 wherein all produced gas has been reinjected as well as outside purchased gas being injected.

(15) From commencement of production in the West Puerto Chiquito Mancos Pool in 1964 until approximately the end of 1986, a period of 22 years, the West Puerto Chiquito Pool enjoyed a favored pressure differential to the area now designated the Gavilan Mancos Pool but now the pressure differential favors the Gavilan Mancos Pool.

(16) The existing West Puerto Chiquito Mancos Pool wells located in the westernmost tier of sections in Township 25 North, Range 1 West, and the proper development of the Mancos Pool along the common existing boundary of the two pools will protect operators within the West Puerto Chiquito Mancos Pool from drainage by wells within the Gavilan Mancos Pool.

(17) Recognizing that the two designated pools constitute two weakly connected areas with different geologic and operating conditions the administration of the two areas will be simplified by maintaining two separate pools.

IT IS THEREFORE ORDERED THAT:

(1) The application of Benson-Montin-Greer in Case No. 9113 to abolish the Gavilan-Mancos Pool and extend the West Puerto Chiquito-Mancos Pool to include the area occupied by the Gavilan-Mancos pool is denied.

(2) The application of Mesa Grande Resources, Inc. for the extension of the Gavilan-Mancos and the concomitant contraction of West Puerto Chiquito-Mancos pool is denied.

(3) Beginning July 1, 1987, the allowable shall be 1280 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance, including but not limited to, production rates, gas-oil ratios, reservoir pressures, and shall report this information to the Commission within 30 days from completion of the tests. Within the first week of July, 1987, bottom hole pressure tests shall be taken

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on all wells. Wells shall be shut-in until pressure stabilizes or for a period not longer than 72 hours. Additional bottom hole tests shall be taken within the first week of October, 1987, with similar testing requirements. All produced gas, including gas vented or flared, shall be metered. Operators are required to submit a testing schedule to the District Supervisor of the Aztec office of the Oil Conservation Division prior to testing so that tests may be witnessed by OCD personnel.

(4) Beginning October 1, 1987, the allowable shall be 800 barrels of oil per day per 640 acres with a limiting gas-oil ratio of 600 cubic feet of gas per barrel of oil. Operators are required to monitor reservoir performance as in (3) above with bottom hole pressure tests to be taken within the first week of January, 1988. This allowable and GOR limitation shall remain in effect until further notice from the Commission.

(5) This case shall be reopened at a hearing to be held in May, 1988 to review the pools in light of information to be gained in the next year and to determine if further changes in rules may be advisable.

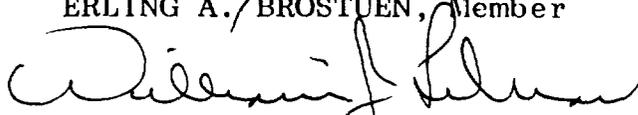
(5) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


WILLIAM R. HUMPHRIES, Member


ERLING A. BROSTUEN, Member


WILLIAM J. LEMAY, Chairman and
Secretary

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