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:

CASE NO. 11150 Order No. R-10280

APPLICATION OF MERIDIAN OIL INC. FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

<u>BY THE DIVISION</u>:

This cause came on for hearing at 8:15 a.m. on December 1, 1994, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 20th day of December, 1994, 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, Meridian Oil Inc., seeks approval to downhole commingle Aztec-Pictured Cliffs and Basin-Fruitland Coal Gas Pool production within the wellbore of its Schultz Com "D" Well No. 8 located at a standard gas well location for both intervals 990 feet from the North line and 1190 feet from the East line (Unit A) of Section 16, Township 29 North, Range 10 West, NMPM, San Juan County, New Mexico.

(3) The above-described well is dedicated to a standard 158.32-acre gas spacing and proration unit comprising Lots 1, 6, 7, and the NW/4 NE/4 (NE/4 equivalent) of Section 16 in the Aztec-Pictured Cliffs Gas Pool, and the applicant proposes to dedicate a standard 313.76-acre gas spacing and proration unit comprising Lots 1, 6, 7, 8, 9, 14, 15 and the NW/4 NE/4 (E/2 equivalent) of Section 16 to the subject well in the Basin-Fruitland Coal Gas Pool.

(12) In the interest of prevention of waste and protection of correlative rights, the subject application should be approved.

(13) Due to the nature of the Basin-Fruitland Coal Gas production, straight allocation of gas volumes from both zones is not appropriate. The applicant therefore seeks the adoption of a monthly allocation formula, as shown on Exhibit "A" attached hereto and made a part hereof.

(14) The operator should be responsible for reporting the monthly gas production from said well by utilizing the proposed allocation formula.

(15) An annual report should be submitted by the operator to both the Aztec and Santa Fe offices of the Division showing the complete computations for each month.

(16) Any condensate production from the subject well should be allocated entirely to the Pictured Cliffs interval.

(17) Any change in the method of gas allocation between the two pools should be made only after due notice and hearing.

(18) To afford the Division an opportunity to assess the potential of waste and to expeditiously order the appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for seven consecutive days.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Meridian Oil Inc., is hereby authorized to downhole commingle Aztec-Pictured Cliffs and Basin-Fruitland Coal Gas Pool production within the wellbore of its Schultz Com "D" Well No. 8 located at a standard gas well location for both intervals 990 feet from the North line and 1190 feet from the East line (Unit A) of Section 16, Township 29 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) The above-described well shall be dedicated to a standard 158.32-acre gas spacing and proration unit comprising Lots 1, 6, 7, and the NW/4 NE/4 (NE/4 equivalent) of Section 16 in the Aztec-Pictured Cliffs Gas Pool, and a standard 313.76-acre gas spacing and proration unit comprising Lots 1, 6, 7, 8, 9, 14, 15 and the NW/4 NE/4 (E/2 equivalent) of Section 16 in the Basin-Fruitland Coal Gas Pool.

(3) The allocation of gas produced from both zones shall be in accordance with the allocation formula adopted for this well as further described in Exhibit "A" attached hereto and made a part hereof.

(4) The operator is responsible for reporting the monthly gas production from the subject well to the Division utilizing the allocation formula adopted herein. An annual report shall be submitted by the operator to both the Aztec and Santa Fe offices of the Division showing the complete computations for the previous twelve month period.

(5) Condensate production from the subject well shall be allocated entirely to the Aztec-Pictured Cliffs Gas Pool. Water production shall be reported in a manner acceptable to the supervisor of the Aztec district office of the Division.

(6) Any variance in the method of gas allocation between the two pools shall be made only after due notice and hearing.

(7) The operator shall immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(8) 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. LEM Director

S E A L

EXHIBIT "A" CASE NO. 11150 DIVISION ORDER NO. R-10280 SCHULTZ COM "D" WELL NO. 8 MONTHLY GAS PRODUCTION ALLOCATION FORMULA

GENERAL EQUATION:

QT = Qftc + Qpc

WHERE: QT = TOTAL MONTHLY PRODUCTION (MCF/MONTH) **Qftc = FRUITLAND COAL (FTC) MONTHLY PRODUCTION (MCF/MONTH) Qpc = PICTURED CLIFFS (PC) MONTHLY PRODUCTION (MCF/MONTH)**

REARRANGING THE EQUATION TO SOLVE FOR Qftc:

Qftc = Qt - Qpc

ANY PRODUCTION RATE OVER WHAT IS CALCULATED FOR THE PICTURED CLIFFS (PC) USING THE APPLIED FORMULA IS FRUITLAND COAL (FTC) PRODUCTION.

PICTURED CLIFFS (PC) FORMATION PRODUCTION FORMULA IS:

$Qpc = Qpci * e^{-(Dpc)*(t)}$

WHERE: Qpci = INITIAL PC MONTHLY FLOW RATE (662 MCF/M) DETERMINED FROM DECLINE CURVE

Dpc = PICTURED CLIFFS MONTHLY DECLINE RATE CALCULATED FROM DECLINE

CURVE AND MATERIAL BALANCE ANALYSIS:

Dpc = (0.0017/M)

THUS:

Qftc = Qt - Qpci * e ^ $\{-(0.0017)*(t)\}$

WHERE: (t) IS TIME IN MONTHS