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. 10699
Order No. R-9880

APPLICATION OF MERIDIAN OIL INC. FOR DOWNHOLE COMMINGLING AND A NON-STANDARD SPACING UNIT, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

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

NOW, on this 21st day of April, 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, Meridian Oil Inc., seeks approval to downhole commingle Blanco-Pictured Cliffs and Basin-Fruitland Coal Gas Pool production within the wellbore of its proposed San Juan 29-7 Unit Well No. 583 to be drilled at a standard gas well location 1850 feet from the South line and 790 feet from the West line (Unit L) of Section 6, Township 29 North, Range 7 West, NMPM, San Juan County, New Mexico.

(3) Lots 10 through 14, SE/4 NW/4 and the E/2 SW/4 (W/2 equivalent) of Section 6, forming a previously approved 215.22-acre non-standard gas spacing and proration unit (approved by Division Order No. R-9303), is to be dedicated to the above-described well in the Basin-Fruitland Coal Gas Pool.

(4) The applicant further seeks approval to dedicate a non-standard 110.66-acre gas spacing and proration unit in the Blanco-Pictured Cliffs Pool comprising Lots 13 and 14 and the E/2 SW/4 (SW/4 equivalent) of Section 6 to the above-described well.

(5) The proposed 110.66-acre gas spacing and proration unit in the Blanco-Pictured Cliffs Pool is necessitated by a variation in the legal subdivision of the United States Public Lands Survey.

(6) The proposed non-standard spacing unit can be efficiently and economically drained and developed by the proposed San Juan 29-7 Unit Well No. 583.

(7) Applicant's geologic evidence indicates that both the Pictured Cliffs and Fruitland formations in this area of the San Juan Basin should be marginally productive.

(8) Applicant's further evidence indicates that due to the marginal production expected, it is uneconomic to drill either a stand alone Pictured Cliffs or Fruitland well in this area.

(9) The proposed downhole commingling is necessary in order for the applicant to economically recover Basin-Fruitland Coal and Blanco-Pictured Cliffs Gas Pool reserves underlying each respective proration unit.

(10) The ownership within the Basin-Fruitland Coal Gas Pool and the Blanco-Pictured Cliffs Pool underlying each respective proration unit is common throughout.

(11) The applicant further demonstrated through its evidence and testimony that:

a) there will be no crossflow between the two commingled pools;

b) neither commingled zone exposes the other to damage by produced liquids;

c) the fluids from each zone are compatible with the other;

d) the bottomhole pressure of the lower pressure zone should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and,

e) the value of the commingled production is not less than the sum of the values of the individual production.

(12) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed non-standard gas proration unit or downhole commingling.

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

(14) 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.

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

(16) 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.

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

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

(19) 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 Blanco-Pictured Cliffs and Basin-Fruitland Coal Gas Pool production within the wellbore of its San Juan 29-7 Unit Well No. 583 to be drilled at a standard gas well location 1850 feet from the South line and 790 feet from the West line (Unit L) of Section 6, Township 29 North, Range 7 West, NMPM, San Juan County, New Mexico.

(2) Lots 10 through 14, SE/4 NW/4 and the E/2 SW/4 (W/2 equivalent) of Section 6, forming a 215.22-acre non-standard gas spacing and proration unit, shall be dedicated to the above-described well in the Basin-Fruitland Coal Gas Pool.

(3) Lots 13 and 14 and the E/2 SW/4 (SW/4 equivalent) of Section 6, forming a 110.66-acre non-standard gas spacing and proration unit approved herein, shall be dedicated to the above-described well in the Blanco-Pictured Cliffs Pool.

(4) 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.

(5) 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.

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

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

(8) 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.

(9) 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

S E A L

EXHIBIT "A"
CASE NO. 10699
DIVISION ORDER NO. R-9880

SAN JUAN 29-7 UNIT WELL NO. 583

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 (DETERMINED FROM COMPLETION DATA)
Dpc = MONTHLY DECLINE RATE BASED ON PC OFFSETS
ANNUAL DECLINE = 6.4% BASED ON 18 WELL STUDY IN T-29N, R-8W

Dpc = (0.00533)

THUS:

$$Qpc = Qpci * e ^ \{-(0.00533)*(t)\}$$
$$Qftc = Qt - Qpci * e ^ \{-(0.00533)*(t)\}$$

WHERE: (t) IS TIME IN MONTHS OF PRODUCTION