STATE OF NEW MEXICO

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#### ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING SOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

# ADMINISTRATIVE ORDER DHC-1029

Meridian Oil Company P.O. Box 4289 Farmington, NM 87499-4289

Attention: Travis D. Stice

Reid Well No. 14

Unit O, Section 7, Township 28 North, Range 9 West, NMPM, San Juan County, New Mexico.

Basin-Fruitland Coal and Aztec-Pictured Cliffs Pools

Dear Mr. Stice:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 20 barrels per day, and total water production shall not exceed 40 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be in accordance with the allocation formula shown on Exhibit "A", attached hereto and made a part hereof. Any condensate production will be allocated entirely to the Aztec-Pictured Cliffs interval.

## **Reid #14**

### MONTHLY GAS PRODUCTION ALLOCATION FORMULA

#### **GENERAL EQUATION**

Qt = Qftc + Qpc

WHERE:

Qt =

TOTAL MONTHLY PRODUCTION (MCF/MONTH)

Qftc =

FRUITLAND COAL (ftc) MONTHLY PRODUCTION

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:

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

WHERE:

Qpci =

INITIAL PC MONTHLY FLOW RATE (DETERMINED FROM LAST MONTH OF PC

ONLY PRODUCTION, PRIOR TO RECOMPLETION & COMMINGLE)

Dpc =

PICTURED CLIFFS MONTHLY DECLINE RATE CALCULATED FROM DECLINE

**CURVE AND MATERIAL BALANCE ANALYSIS:** 

Dpc = (0.00354/M)

THUS:

Qftc =

Qt - Qpci X e^{-(0.00354) X (t)}

WHERE:

(t) IS IN MONTHS

REFERENCE: Thompson, R. S., and Wright, J. D., "Oil Property Evaluation", pages 5-2, 5-3, 5-4.