# MERIDIAN

(AMEND) ORDER # R-9920

(REOPEN)
CASE # 10745, # 10754

AUGUST 26, 1993

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W. THOMAS KELLAHIN\*

August 2, 1993

#### HAND DELIVERED

Mr. William J. LeMay, Director Oil Conservation Division 310 Old Santa Fe Trail Santa Fe, New Mexico 87501

Re: Meridian Oil Inc. Application to Amend Division Order R-9920 and to Reopen Cases 10745 & 10754, Rio Arriba and San Juan Counties, New Mexico

Dear Mr. LeMay:

On behalf of Meridian Oil Inc., please find enclosed our referenced application which we request be set for hearing on the next available examiner's docket now scheduled for August 26, 1993.

On July 9, 1993, I met with Michael E. Stogner, Larry VanRyan and Robert G. Stovall to discuss Division Order R-9920. At my request and with their concurrence, I have filed the enclosed application to have the Division consider modifying certain provisions affecting seven downhole commingling applications rather than filing for a DeNovo hearing before the Commission concerning those provisions.

Also enclosed is my suggested notice of this case for the NMOCD docket.

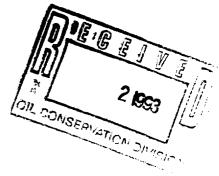
Very truly

Thomas/Kellahin

cc: Alan Alexander (Meridian-Farminigton)

#### SUGGESTED ADVERTISEMENT

Case \_\_\_\_\_\_: Application of Meridian Oil Inc. to amend Division Order R-9920 and to reopen Cases 10754 and 10745, San Juan and Rio Arriba Counties, New Mexico. The applicant seeks to amend Division Order R-9920, dated July 9, 1993, entered in Cases 10721, 10722, 10723, 10724 and 10725 and to Reopen Cases 10745 and 10754 in order to present additional evidence. Specifically, applicant seeks to amend those provisions of Order R-9920 which established an economic limit for downhole commingling of production in certain wells in the Pictured Cliffs formation and the Basin Fruitland Coal Gas Pool and to have said amendments applied to orders to be issued in Cases 10754 and 10754. These cases involve a total of seven wells located and described in Division Examiner dockets of April 22, 1993 and July 1, 1993.



## 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.	

APPLICATION OF MERIDIAN OIL INC. TO AMEND DIVISION ORDER R-9920 AND TO REOPEN CASES 10745 AND 10754 SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

#### **APPLICATION**

Comes now MERIDIAN OIL INC., ("Meridian") and applies to the New Mexico Oil Conservation Division to amend Division Order R-9920, dated July 9, 1993, entered in Cases 10721, 10722, 10723, 10724 and 10725 and to Reopen Cases 10745 and 10754 in order to present additional evidence.

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#### In support of this application Meridian states:

- (1) Meridian is the applicant in the following seven cases pending before the Division all of which involve a common issue concerning the downhole commingling of Pictured Cliffs formation production with the Basin-Fruitland Coal Gas Pool:
  - Case 10721: Rowley Com Well No. 500
     Unit K, (SW/4 and W/2) Sec 7, T27N, R10W, San Juan County,
  - Case 10722: McAdams Well No. 500
     Unit A, (NE/4 & E/4) Sec 28, T27N, R10W.
     San Juan County,
  - Case 10723: Whitley "A" Well No. 100, Unit L, (SW/4 & W/2) Sec 17, T27N, R11W, San Juan County,
  - Case 10724: Rhodes "C" Well No. 101, Unit N, (SW/4 & W/2) Sec 30, T28N, R11W, San Juan County,
  - Case 10725: Rhodes "C" Well No. 102, Unit B, (NE/4 & N/2) Sec 31, T28N, R11W, San Juan County,
  - Case 10754: San Juan 28-4 Unit #225 Well, Unit N, (SW/4 & S/2) Sec 7, T28N, R4W, Rio Arriba County,
  - 7. Case 10745: Valdez #5 Well,
    Unit F, (NW/4 & N/2) Sec 16, T28N, R4W,
    Rio Arriba County.

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- (2) On July 9, 1993, the Division entered Order R-9920 which is applicable to the first five cases number above and at the request of Meridian has not entered orders in the last two cases.
- (3) In Order R-9920 the Division retained continuing jurisdiction over these cases.
- (4) Order R-9920 contains the following limitation on downhole commingling of production from the Pictured Cliffs formation and the Basin Fruitland Coal Gas Pool:
- "PROVIDED HOWEVER, in the event total gas production from both pools in a well exceeds 300 MCF per Day, downhole commingling will not be allowed in the effected well until the combined rate drops below 300 MCF/day."
- (5) Meridian requests that all these cases be reopened so that it can present supplemental evidence concerning this issue in order to demonstrate that this limitation, unless amended, will preclude the only economic method available to produce the Pictured Cliffs formation gas in these wells.
- (6) Specifically, Meridian seeks to amend those provisions of Order R-9920 which established an economic limit for downhole commingling based upon a combined producing rate of not more than 300 MCFPD of total gas production from both pools.
- (7) Meridian proposes that the economic limit for downhole commingling in all seven cases be based upon the relationship of costs to rate <u>and</u> estimated ultimate gas recovery <u>only</u> from the Pictured Cliff pool.

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(8) Meridian proposes the following substitution:

"In the event total gas production from the Pictured Cliffs Pool in a well exceeds both a maximum average daily producing rate of 300 MCFPD and an estimated ultimate gas recovery ("EUR") of 900 MMCF, then and in that event downhole commingle will not be allowed in the affected well until both the rate and the EUR drop below the above described limits."

- (9) These cases were originally heard by the Division at Examiner Hearings held on April 22, 1993 and July 1, 1993 with Meridian being the only party to appear.
- (10) Because Meridian is the only party to have appeared in these case, no further notice is required to reopen these cases.
- (11) Meridian requests that this matter be placed on the Division's Examiner docket now set for August 26, 1993.

WHEREFORE, Meridian requests that after hearing, the Division grant the relief requested herein.

Respectfully submitted

W. Thomas Kellahin Kellahin & Kellahin P. O. Box 2265

Santa Fe, New Mexico 87501

(505) 982-4285

### MERIDIAN'S PROPOSED AMENDMENTS TO ORDER

#### (1) Amendment No.1: (page 4)

delete the last sentence of Finding (7) and substitute the following:

"The economic limit for downhole commingling in these cases should be based upon the relationship of costs to rate and estimated ultimate gas recovery from either the Pictured Cliffs or the Fruitland Coal gas pools.

#### (2) Amendment No. 2: (Page 8)

delete:

"Provided However, in the event total gas production from both pools in a well exceeds 300 MCF per Day, downhole commingling will not be allowed in the effected well until the combined rate drops below 300 MCF per day."

and substitute the following:

"In the event total gas production from either pool in a well exceeds the curve for the dual completion case as plotted on Exhibit A attached (being a plot of costs compared to both maximum average daily producing rate and an estimated ultimate gas recovery (EUR), then and in that event downhole commingling shall not be allowed in the affected well until such time as the total gas production from either pool in that well drops below the described limit on the curve."

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#### PICTURED CLIFFS/FRUITLAND COAL

## COMPLETION TECHNIQUE ECONOMIC CRITERIA

In order to facilitate an economic completion of either Pictured Cliffs or Fruitland Coal, three requirements must be met. It is the combination of these three requirements that determines the economic status and completion method (single completion, dual completion, commingled completion) utilized. These three requirements are as follows:

RESERVES Np(pc) (EUR)

COSTS (Investment and Operating)

FLOW RATE (Qpci) (Stabilized Production)

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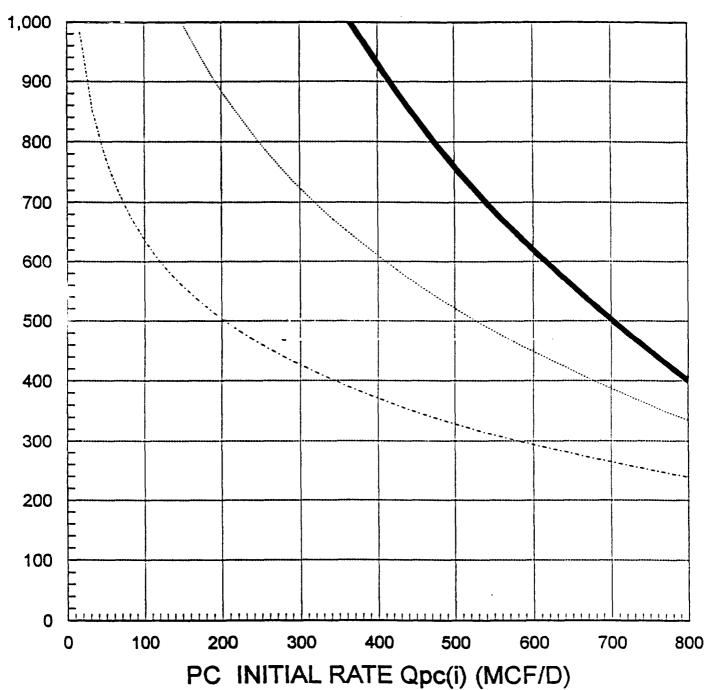
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# FRUITLAND COAL GAS OR PICTURED CLIFFS

## ECONOMIC EVALUATION

#### **COMPLETION TECHNIQUE SENSITIVITY**

PC EUR Np(pc) (MMCF)



SINGLE DUAL COMMINGLE 15% ROR 15% ROR 15% ROR

INITIAL RATE VS EUR

# RESERVES AND INITIAL RATE

		Qbc(p)	Qffc(p)	Qpc(i)	Qt(i)	P*(pc)	НСРУ	R.F.	Np(pc)
WELL NAME	LOCATION	MCF/D	MCF/D	MCF/D	MCF/D	(psi)	MMCF/PSI	(%)	MMCF
AZTEC #700	SW/4 14-28N-11W	266	623	91	275	130	1.59	%00'98	175.70
RHODES C #101	SW/4 30-28N-11W	493	W/A	150	N/A	345	1.05	85.00%	307.91
RHODES C #102	NE/4 31-28N-11W	493	N/A	150	N/A	364	0.61	85.00%	188.73
WHITLEY A #100	SW/4 17-27N-11W	493	N/A	150	N/A	191	1.34	85.00%	217.55
ROWLEY COM #500	SW/4 7-27N-10W	N/A	N/A	N/A	N/A	295	0.84	85.00%	210.63
McADAMS #500	NE/4 28-27N-10W	N/A	N/A	N/A	N/A	295	0.82	85.00%	205.62
HUERFANO UNIT #549	NE/4 33-27N-10W	N/A	N/A	N/A	N/A	295	1.08	85.00%	270.81