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1 5 1993

OIL CONSERVATION DIVISION

RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

"NEW MEXICO BOARD OF LEGAL SPECIALIZATION

W. THOMAS KELLAHIN\*

September 15, 1993

#### HAND DELIVERED

Mr. Michael E. Stogner Hearing Examiner Oil Conservation Division 310 Old Santa Fe Trail Santa Fe, New Mexico 87501

Re: Meridian Oil Inc.'s

Downhole Commingling Cases

Dear Mr Stogner:

On behalf of Meridian Oil Inc., please find enclosed our suggested order. I have drafted it as an "A" Order to supplement Order R-9920.

If you approve this request, then a combination of both Order R-9920 as modified by this "A" Order would be appropriate for the following additional cases:

OCD Case 10745 (Valdez #5 Well)
OCD Case 10754 (San Juan 28-4 Unit #225 Well)

If you desire me to draft these additional orders, I will be happy to do so. Please let me know.

W. Thomas Kellahin

cc: Alan Alexander

Meridian Oi Inc. (Farmington)

## 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:

APPLICATION OF MERIDIAN OIL INC.	Case	No.	10721
FOR AN UNORTHODOX GAS WELL LOCATION			
AND DOWNHOLE COMMINGLING,			
SAN JUAN COUNTY, NEW MEXICO.			

APPLICATION OF MERIDIAN OIL INC.	Case No.	10722
FOR DOWNHOLE COMMINGLING,		
SAN JUAN COUNTY NEW MEXICO		

APPLICATION OF MERIDIAN OIL INC.	Case	No.	10723
FOR AN UNORTHODOX GAS WELL LOCATION			
AND DOWNHOLE COMMINGLING,			
SAN JUAN COUNTY, NEW MEXICO.			

APPLICATION OF MERIDIAN OIL INC.	Case No	. 10724
FOR AN UNORTHODOX GAS WELL LOCATION		
AND DOWNHOLE COMMINGLING,		
SAN JUAN COUNTY. NEW MEXICO.		

APPLICATION OF MERIDIAN OIL INC. Case No. 10725 FOR AN UNORTHODOX GAS WELL LOCATION AND DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO.

Order No. R-9920-A

### MERIDIAN OIL INC.'S PROPOSED ORDER OF THE DIVISION

#### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 22, 1993, at Santa Fe, New Mexico, before Michael E. Stogner.

Case No.s 10721 through 10725 Order No. R-9920-A Page 3

- (5) In addition, the Division proposed to issue orders in Cases 10845 and 10754 containing similar economic limitations as set forth in Order R-9920.
- (6) Meridian timely requested that these cases be reopened so that it could present supplemental evidence concerning this issue in order to demonstrate that this economic limitation, unless amended, would preclude the only economic method available to produce the Pictured Cliffs and Basin Fruitland Coal Gas formation gas in these wells.
- (7) Meridian presented expert petroleum engineering data and economic analysis which support adoption of an "Economic Limit" for downhole commingling in all seven cases with such Economic Limit being based upon the relationship of costs to rate and estimated ultimate gas recovery from either the Pictured Cliffs formation or the Basin Fruitland Coal Gas Pool.
- (8) In addition, Meridian has presented a graph which can be utilized by the Division as an accurate and reliable means by which to establish an Economic Limit for the downhole commingling of production from either of these pools in this area and is hereby adopted as Exhibit "B" to the original Order.
- (9) The Economic Limit plotted on Exhibit "B" is based upon either the Pictured Cliff or Basin Fruitland Coal Gas Pool well costs with three individual curves representing the minimum estimated cost of (1) a single well (\$320,000.), (2) a dual completed well (\$270,000.) or (3) a downhole commingled well (\$200,000.).

Case No.s 10721 through 10725 Order No. R-9920-A Page 5

#### IT IS THEREFORE ORDERED THAT:

- (1) Meridian's request to amend Order R-9920 is approved.
- (2) The following ordering paragraph contained on Page 8 of Order R-9920 is amended by deleting the following:

"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."

and the substituting the following:

"PROVIDED HOWEVER, in the event the Economic Limit plotted for production from either pool in a well is less than the curve for the dual completion case as plotted on Exhibit "B" [being a plot of costs compared to both maximum average daily producing rate against pipeline pressure ("Initial Rate") and an estimated ultimate gas recovery ("EUR")], then and in that event, downhole commingling shall be allowed in the effected well. In the event the Economic Limit plotted for production from both pools in a well initially exceeds the curve for the dual completion case, then downhole commingling shall not be allowed in the well until such time as the Economic Limit in that well for production from either pool drops below the dual completion curve plotted on Exhibit "B".

add a new ordering paragraph (3) as follows:

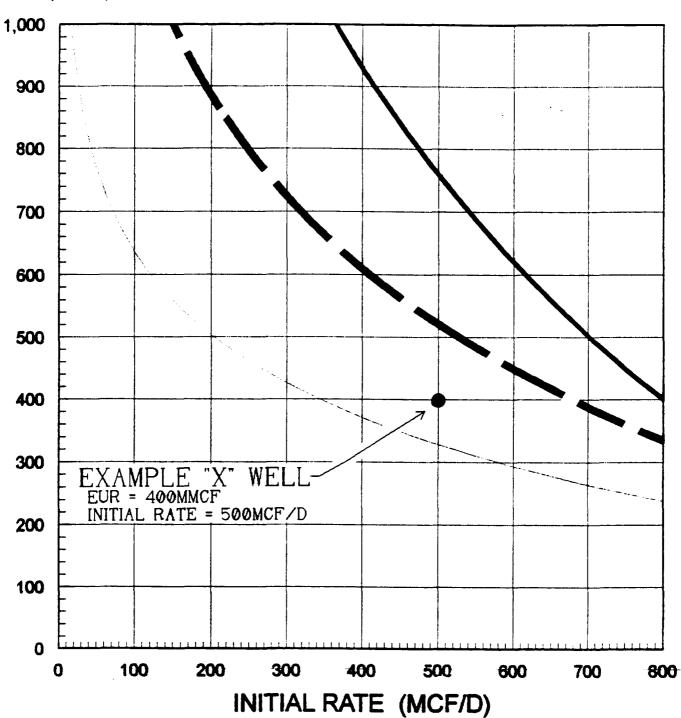
" As part of the procedure for obtaining authorization to produce the subject well as a downhole commingled well, the operator shall submit to the Supervisor of the Aztec Office of the Division a sworn

15% ROR 15% ROR 15% ROR

### PICTURED CLIFFS / FRUITLAND COAL

# ECONOMIC EVALUATION COMPLETION TECHNIQUE SENSITIVITY





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