

MERIDIAN OIL

November 15, 1993

Mr. Frank Chavez
N. M. Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Commingling Allocation
Huerfanito Unit #79M MV-DK
1795' FSL 1730' FEL
Sec. 26, T27N R09W
San Juan County, N. M.

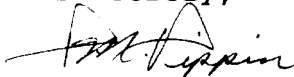
Dear Frank,

We have reviewed the gas tests on our Huerfanito Unit #79M which is a commingled Blanco Mesaverde - Basin Dakota well, as per N.M.O.C.D. order #R-9887. Based on tests taken during completion operations from both the Dakota and Mesaverde, we feel that the following oil and gas production allocation on the subject well's commingled zones would be reasonably accurate:

	<u>Gas</u>	<u>Oil</u>
Dakota	57%	50%
Mesaverde	43%	50%

Please let us know if this percentage allocation meets with your approval.

Sincerely,



P. M. Pippin
Sr. Production Engineer

PMP:pmp
attachment

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CALCULATIONS FOR HUERFANITO UNIT #79M MV-DK

Commingled
Blanco Mesaverde
Basin Dakota

Pitot gauges were taken during completion operations while the rig was on location.

GAS

Pitot Gauge MV Only (8-15-93): 869 MCF/D
7 B/Hr water & oil

Pitot Gauge MV + DK (8-17-93): 2039 MCF/D
5.2 BF/Hr 25% oil

GAS ALLOCATION

$$\text{Mesaverde} = \frac{869}{2039} = 43\%$$

$$\text{Dakota} = \frac{2039 - 869}{2039} = 57\%$$

OIL ALLOCATION

The oil gauges taken during rig operations for this well were inconclusive as to the oil allocation. Therefore, since an indication of oil was seen during the completion of both intervals, the oil allocation was split in half.

$$\text{Mesaverde} = 50\%$$

$$\text{Dakota} = 50\%$$

Blair
11/22/93

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. 10701
Order No. R-9887

APPLICATION OF MERIDIAN OIL INC.
FOR DOWNHOLE COMMINGLING AND FOR
AN ADMINISTRATIVE DOWNHOLE COMMINGLING
PROCEDURE WITHIN THE HUERFANITO UNIT
AREA, 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 27th 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,

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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 commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the following described wells in San Juan County, New Mexico:

WELL NAME & NUMBER

WELL LOCATION

EXISTING WELLS

S T R

Huerfanito Unit No. 71 660' FNL & 660' FEL (A) 3, 26N, 9W
Huerfanito Unit No. 104 1090' FSL & 825' FWL (M) 27, 27N, 9W

WELLS TO BE DRILLED

Huerfanito Unit No. 78M 1545' FSL & 1270' FEL (I) 36, 27N, 9W
Huerfanito Unit No. 79M 1795' FSL & 1730' FEL (J) 26, 27N, 9W
Huerfanito Unit No. 82M 870' FNL & 850' FWL (D) 25, 27N, 9W
Huerfanito Unit No. 98M 790' FSL & 1500' FEL (O) 35, 27N, 9W

(3) The applicant further seeks the adoption of an administrative procedure for authorizing the downhole commingling of Blanco-Mesaverde and Basin-Dakota Pool production within certain existing and subsequently drilled wells in its Huerfanito Unit Area, San Juan County, New Mexico, without additional notice to each affected interest owner within the Unit Area.

(4) The Huerfanito Unit Well Nos. 71 and 104 are currently completed in the Basin-Dakota Pool and, according to Division records, are capable of low marginal production only.

(5) Within the Huerfanito Unit Well Nos. 71 and 104, the applicant expects to encounter marginal production only from the Mesaverde formation.

(6) Within the proposed Huerfanito Unit Well Nos. 78M, 79M, 82M and 98M, the applicant expects to encounter marginal production only from both the Dakota and Mesaverde formations.

(7) Applicant's further evidence indicates that due to the marginal production expected, it is uneconomic to drill either a stand alone Dakota or Mesaverde well in this area. Applicant's testimony also indicates that it is uneconomic to drill and complete the subject wells as dual producers.

(8) The proposed downhole commingling is necessary in order for the applicant to economically recover Basin-Dakota and Blanco-Mesaverde Pool reserves underlying each respective proration unit.

(9) The Huerfanito Unit is a Federal exploratory unit initially comprising some 10,245 acres in portions of Townships 26 and 27 North, Range 9 West, NMPM, San Juan County, New Mexico. The unit was formed in 1952 and is currently operated by Meridian Oil Inc.

(10) The evidence and testimony presented indicates that the Basin-Dakota Pool has been fully developed on 320-acre spacing with'n the Huerfanito Unit and that approximately half of the Unit Area has been developed in the Blanco-Mesaverde Pool.

(11) The applicant has identified approximately seventeen (17) Basin-Dakota Pool infill well locations it plans to drill within the Unit Area.

(12) Based upon historical production, the applicant expects Basin-Dakota Pool initial production from infill drilling to be marginal in nature.

(13) Testimony and evidence presented by the applicant indicates that gas reserves in the Dakota formation are not sufficient to economically justify the drilling of stand alone wells to produce such reserves.

(14) The current well economics and expected Dakota producing rates virtually assure that these wells will be candidates for downhole commingling with the Mesaverde formation.

(15) The applicant has also identified approximately eleven (11) current Dakota producing wells which also by virtue of well economics and producing rates make them candidates for downhole commingling with the Mesaverde formation.

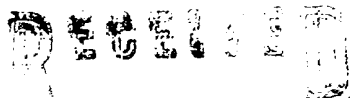
(16) The applicant expects initial producing rates from the Mesaverde formation to be marginal in nature.

(17) The applicant further demonstrated through its evidence and testimony that within the wells it proposes or will propose to commingle within the Unit Area:

- 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.

(18) The Dakota and Mesaverde Participating Areas within the Huerfanito Unit are not common.

(19) By virtue of different Participating Areas, the interest ownership between the Dakota and Mesaverde formations within any given wellbore is not common.



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(20) Applicant's Exhibit E in this case is a list of one hundred and forty (140) interest owners in the Dakota and Mesaverde Participating Areas within the Huerfanito Unit. All such interest owners were notified of the application in this case.

(21) Rule No. 303(C) of the Division Rules and Regulations provides that administrative approval for downhole commingling may be granted provided that the interest ownership, including working, royalty and overriding royalty interest, is common among the commingled zones.

(22) Applicant's proposed administrative procedure would provide for Division approval to downhole commingle wells in the Huerfanito Unit Area without hearing, and without the requirement that each interest owner in the Dakota and Mesaverde Participating Areas be notified of such commingling.

(23) The downhole commingling of wells within the Huerfanito Unit Area will benefit working, royalty and overriding royalty interest owners. In addition, the downhole commingling of wells within the Huerfanito Unit Area should not violate the correlative rights of any interest owner.

(24) The evidence in this case indicates that notice to each interest owner within the Dakota and Mesaverde Participating Areas of subsequent downhole comminglings within the Huerfanito Unit is unnecessary and is an excessive burden on the applicant.

(25) No interest owner and/or offset operator appeared at the hearing in opposition to the application.

(26) An administrative procedure should be established within the Huerfanito Unit for obtaining approval for subsequently downhole commingled wells without notice to Unit interest owners and hearing, provided however that, all provisions contained within Rule No. 303(C) of the Division Rules and Regulations, with the exception of Part 1 (b)(v), are fully complied with.

(27) The proposed administrative procedure for obtaining approval for downhole commingling will allow the applicant the opportunity to recover additional gas reserves from the Huerfanito Unit Area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

(28) In the interest of prevention of waste and protection of correlative rights, the proposed downhole commingling within the Huerfanito Unit Wells Nos. 71, 104, 78M, 79M, 82M and 98M should be approved.

(29) The applicant should consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject wells in order to determine a proper allocation of production.

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

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Meridian Oil Inc., is hereby authorized to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the following described wells in San Juan County, New Mexico:

<u>WELL NAME & NUMBER</u>	<u>WELL LOCATION</u>
	<u>EXISTING WELLS</u>
	<u>S T R</u>
Huerfanito Unit No. 71	660' FNL & 660' FEL (A) 3, 26N, 9W
Huerfanito Unit No. 104	1090' FSL & 825' FWL (M) 27, 27N, 9W

<u>WELLS TO BE DRILLED</u>	
Huerfanito Unit No. 78M	1545' FSL & 1270' FEL (I) 36, 27N, 9W
Huerfanito Unit No. 79M	1795' FSL & 1730' FEL (J) 26, 27N, 9W
Huerfanito Unit No. 82M	870' FNL & 850' FWL (D) 25, 27N, 9W
Huerfanito Unit No. 98M	790' FSL & 1500' FEL (C) 35, 27N, 9W

(2) The applicant shall consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject wells in order to determine a proper allocation of production.

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

(4) An administrative procedure for obtaining approval to downhole commingle wells within the Huerfanito Unit, located in portions of Townships 26 and 27 North, Range 9 West, NMPM, San Juan County, New Mexico, is hereby established.

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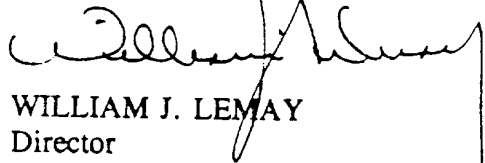
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(5) In order to obtain Division authorization to downhole commingle wells within the Huerfanito Unit, the applicant shall file an application with the Santa Fe and Aztec Offices of the Division. Such application shall contain all of the information required under Rule No. 303(C) of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the Dakota and Mesaverde Participating Areas in the Huerfanito Unit of such proposed commingling. In addition, the application shall contain evidence that all offset operators and the United States Bureau of Land Management (BLM) have been notified of the proposed commingling.

(6) 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

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