

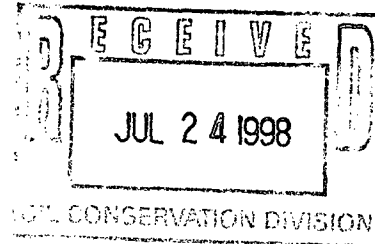
DHC 8/13/98

# MERRION

OIL & GAS

2019

July 20, 1998



Mr. David Catanach  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

**Re: Application for Administrative Approval  
Downhole Commingling  
Basin Dakota Pool and Crouch Mesa Mesaverde Pool  
Fifield Com 1E  
Section 5, T29N, R11W  
San Juan County, New Mexico**

Dear Mr. Catanach:

Merrion Oil & Gas requests administrative approval for downhole commingling of the Basin Dakota and the Crouch Mesa Mesaverde Pools in the subject wellbore. The following information is provided in support of this application:

**I. Proposed Spacing Units**

Exhibit 1 is the ownership plat showing the leases involved and showing the offset operators. Exhibit 2 shows the C-102 plat for the Basin Dakota with a 294 acre spacing unit in the N/2 of Section 5. Exhibit 3 is the C-102 plat for the Crouch Mesa Mesaverde Pool with a  $\pm 148$  acre spacing unit in the NW/4 of Section 5.

**II. Justification**

Both the Mesaverde zone and the Dakota zone are depleted to between 660 and 800 psi in the offset wells (see Exhibits 4 and 5). Because the remaining recoverable reserves from each zone is expected to be marginal, the only way a well can be economically justified is to commingle the two zones.

III. Allocation Methodology

Because both zones exhibit similar exponential decline characteristics (see Exhibit 4), initial flow tests will be used to proportionally split flow between the two zones. If future changes in the condensate API gravity or gas BTU content indicate a substantive change in the mix of production from the two zones, the allocation formula will be adjusted based on additional testing.

IV. Reservoir Fluid Compatibility

Water analyses are not available for wells in the immediate area. However, the waters of the Mesaverde and Dakota have been generally determined to be compatible across the basin based on other similar applications to the OCD.

V. Cross Flow Between Zones

The current reservoir pressure of the Dakota is at  $\pm$  820 psi while the Mesaverde is at  $\pm$  660 psi. With a flowing line pressure at around 250 psi, crossflow is not anticipated to be a problem.

VI. Well Ownership Notification

The spacing unit and ownership of the two zones is not the same (see Exhibit 1). Exhibit 6 is a list of all working interest, override, and royalty interest owners in the well who received certified copies of this application.

VII. Offset Operator Notification


Exhibit 1 is a plat showing all offset operators. Exhibit 7 is a list of all the offset operators who received a certified copy of this application.

VIII. Summary

Neither zone has the reserves to economically justify a well. Commingling the zones will maximize reserves and protect correlative rights. Therefore, we request your approval of this application.

Please call me with questions or if additional information is required.

Sincerely,

  
George F. Sharpe  
Manager - Oil & Gas Investments

xc: Offset Operators and Well Owners

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Objections to this application must be sent to the NMOCD within 20 days of receipt of this application. If you do not object, please sign and return this waiver sheet to George Sharpe.

**WAIVER**

\_\_\_\_\_ hereby waives objection to this application.  
Company or Individual Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

811 South First St., Artesia, NM 88210-2835

## DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

## APPROVAL PROCESS:

☒ Administrative ☐ Hearing

## EXISTING WELLBORE

☐ YES ☒ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

MERRION OIL &amp; GAS CORPORATION

610 Reilly Avenue, Farmington, NM 87401-2634

Operator

Address

FiField Com

1E

E-05-29N-11W

San Juan

Lessee

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 014634 Property Code 22343 API NO. 30-045-29517 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Crouch Mesa Mesaverde		Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	** Will be provided after well is drilled ****		
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flow		Flow
5. Bottomhole Pressure	a. (Current) 730 psi	a.	a. 820 psi
Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	b. (Original) 990 psi	b.	b. 2525 psi
6. Oil Gravity ( $^{\circ}$ API) or Gas BTU Content	BTU 1300		BTU 1188
7. Producing or Shut-In?	SI - not drilled yet		SI - not drilled yet
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production	Date: Rates: NA	Date: Rates:	Date: Rates: NA
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: NA	Date: Rates:	Date: Rates: NA
8. Fixed Percentage Allocation Formula - % for each zone	*** Will be provided after well is drilled ***		
	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No  
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).

## 16. ATTACHMENTS:

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Notification list of all offset operators.
- \* Notification list of working, overriding, and royalty interests for uncommon interest cases.
- \* Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Sharpe TITLE Engineer DATE 7/20/98TYPE OR PRINT NAME George F. Sharpe TELEPHONE NO. ( 505 ) 327-9801