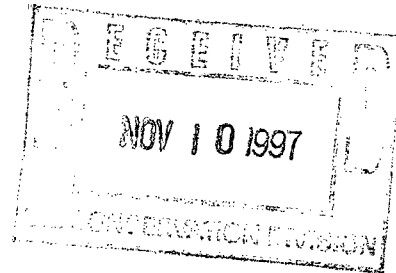


DHC 12/1/97

1762

# MERRION

OIL & GAS



November 7, 1997

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 and Devils Fork Gallup Pools  
Canada Mesa 4E  
Section 10, T24N, R6W  
Rio Arriba County, New Mexico**

Dear Mr. Catanach:

Merrion requests approval for downhole commingling the Basin Dakota and Devils Fork Gallup zones in the subject well. The following information is provided in support of this application.

I. Supporting Data Enclosed

- \* C-107 A
- \* Exhibit 1 - Lease Plat & Offset Operator Plat
- \* Exhibit 2 - C102 for Devils Fork Gallup
- \* Exhibit 3 - C102 for Basin Dakota
- \* Exhibit 4 - Gallup Production Plot
- \* Exhibit 5 - Dakota Production Plot
- \* Exhibit 6 - Offset Operators Notified
- \* Exhibit 7 - Interest Owners Notified

II. Justification

- 1.) The subject well was dually completed in 1983 in the Gallup and Dakota zones. Production has declined since that time to where the Gallup is making around 3.0 BOPD and 91 MCFD and the Dakota 0.5 BOPD and 83 MCFD. It is felt that both zones would perform better by combining them and installing some form of artificial lift, be it a pumping unit or piston lift. The dual completion makes this

impossible to do. By commingling the zones, we feel we can dramatically improve production and increase recoverable reserves from both zones to the benefit of all working interest, override, and royalty owners in the well.

- 2.) The pressures are such that crossflow should not be a concern.
- 3.) The fluids are compatible.

III. Allocation Methodology

The following fixed rate split is recommended for allocation of production.

	<u>Gallup</u>	<u>Dakota</u>
Oil Rate (BOPD)	3.0	0.5
Oil Allocation %	86%	14%
Gas Rate (MCFD)	91	83
Gas Allocation %	52%	48%
Water Allocation %	50%	50%

IV. Notification

Exhibit 6 is a list of offset operators who received copies of this application through certified mail.

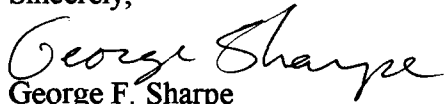
Ownership in the two zones is not common. The owners in the Fee Lease (see Exhibit 1) are the owners in the Canyon Largo Unit. They received notice of the intent to commingle through Reference Case R-10786, and none objected. The owners in the Federal Lease SF079086, however, were not included in said notification. Therefore, Exhibit 7 lists the Federal Lease interest owners who received certified copies of this application.

V. Summary

Production from the two zones is becoming increasingly marginal. Commingling the zones will allow us to optimize artificial lift. This will maximize recoverable reserves and protect correlative rights. Therefore, we request your prompt approval of this application.

Please call me with questions at (505) 327-9801, ext. 114.

Sincerely,

  
George F. Sharpe  
Manager - Oil & Gas Investments

xc: BLM - Farmington  
OCD - Aztec

Application for Canada Mesa 4E Commingling  
Notification to Interest Owners and Offset Operators

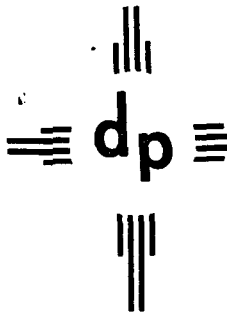
Any objections to this application must be made in writing to the Oil Conservation Division within twenty days of the above date.

If you have no objection to this application, please sign the waiver below and return to my attention by November 28, 1997. If you have any questions, please feel free to contact me at the number listed above.

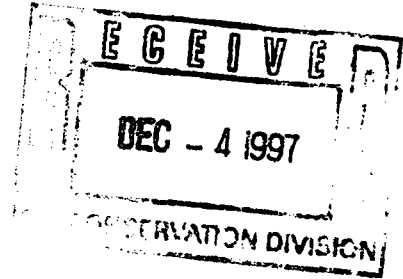
**WAIVER**

\_\_\_\_\_ hereby waives objection to this application.  
Company

Name \_\_\_\_\_ Date \_\_\_\_\_



# dugan production corp.



November 21, 1997

Mr. David Catanach  
New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Applications for Downhole Commingling  
Merrion Oil & Gas  
Canada Mesa # 4 and 4E Wells  
Section 10-T24N-R6W  
Rio Arriba County, New Mexico  
Basin Dakota and Devils Fork Gallup Pools

Dear Mr. Catanach:

This office is in receipt of the above applications filed by Merrion Oil & Gas. Dugan Production Corp. has been notified as an offset operator. Please be advised that Dugan Production Corp. has no objections to either of these proposals and recommends their approval.

Sincerely,

David M. Poage  
Land Manager

xc: George F. Sharpe  
610 Reilly Avenue  
Farmington, NM 87401

Application for Canada Mesa 4E Commingling  
Notification to Interest Owners and Offset Operators

Any objections to this application must be made in writing to the Oil Conservation Division within twenty days of the above date.

If you have no objection to this application, please sign the waiver below and return to my attention by November 28, 1997. If you have any questions, please feel free to contact me at the number listed above.

**WAIVER**

\_\_\_\_\_  
Company hereby waives objection to this application.

Name  Date Nov 27, 1997

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 87505-8429

Form C-107-A  
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator: Merrion Oil & Gas Corporation Address: 610 Reilly Avenue, Farmington, NM 87401-2634  
Lease: Canada Mesa Com Well No. 4E Unit Ltr. - Sec - Twp - Rge F 10-24N-06W County Rio Arriba  
OGRID NO. 014634 Property Code 007749 API NO. 30-039-23057 Spacing Unit Lease Types: (check 1 or more)  
Federal ☒ State ☐ Land/Int Fee ☒

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Devils Fork Gallup (17610)		Basin Dakota (71599)
2. Top and Bottom of Pay Section (Perforations)	5354'-5572'		6454'-6503'
3. Type of production (Oil or Gas)	Oil		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 720 psig b. (Original) 1418 psig	a.  b.	a. 1135 psig b. 2700 psig
6. Oil Gravity (°API) or Gas BTU Content	43° API 1332 BTU		58° API 1162 BTU
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 8/97 Rates: 3.0 BOPD; 91 MCFD; 0 BWD	Date: Rates:	Date: 8/97 Rates: 0.5 BOPD; 83 MCFD; 0 BWD
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 86 % Gas: 52 %	Oil: % Gas: %	Oil: 14 % Gas: 48 %

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 ☐ No

11. 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 ☐ No

13. 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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10786

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.

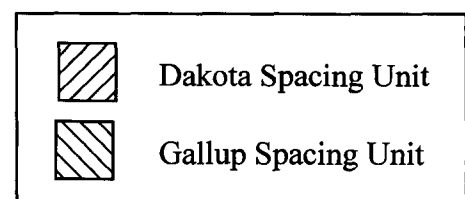
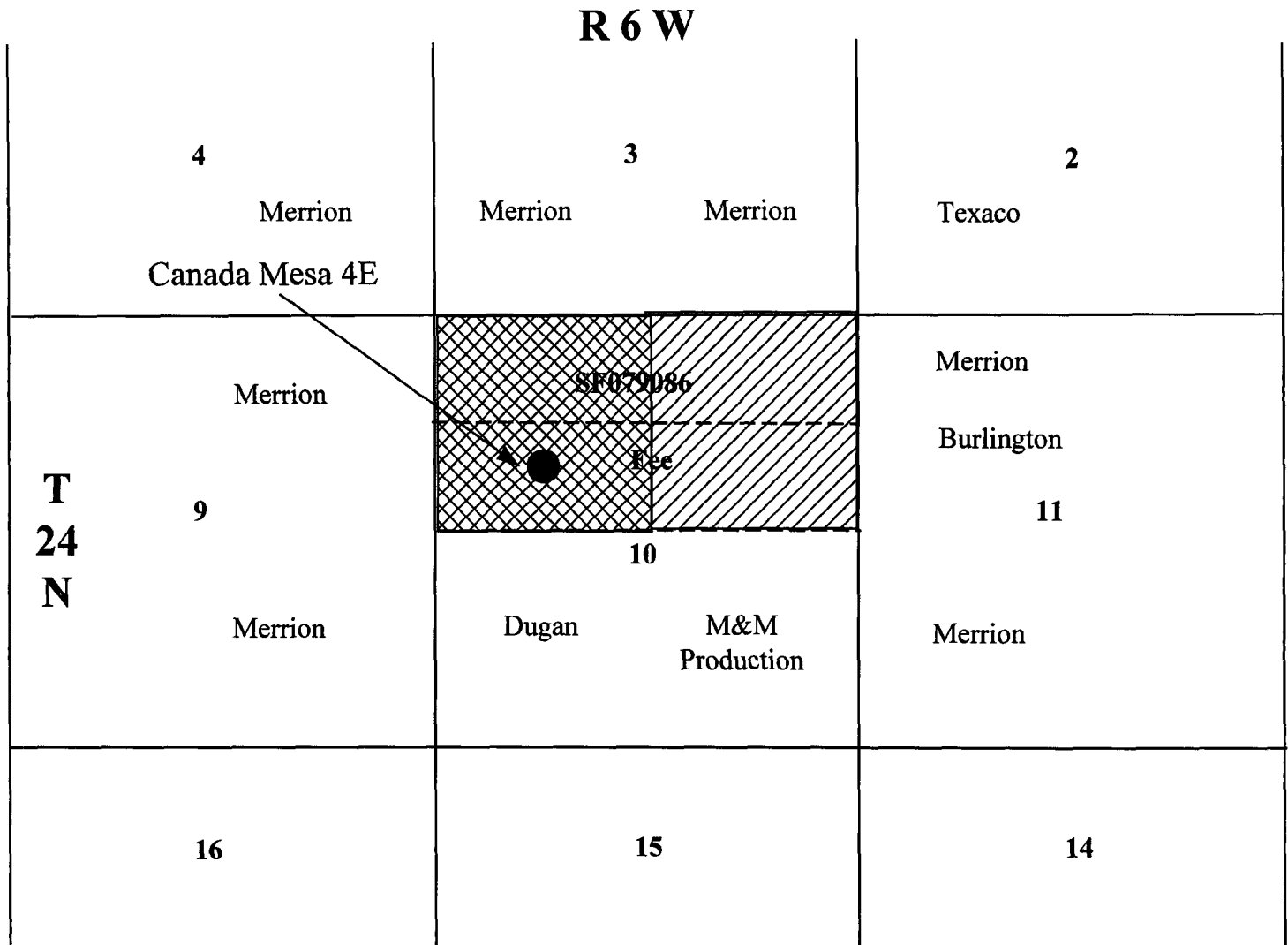
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE George Sharpe TITLE Pet. Engineer DATE 11/6/97

TYPE OR PRINT NAME George F. Sharpe TELEPHONE NO. ( 505 ) 327-9801

**EXHIBIT 1**  
**CANADA MESA #4E LEASE PLAT**  
**OFFSET OWNERSHIP PLAT**

**T24N, R6W**  
**Rio Arriba County, NM**



All distances must be from the outer boundaries of the Section.

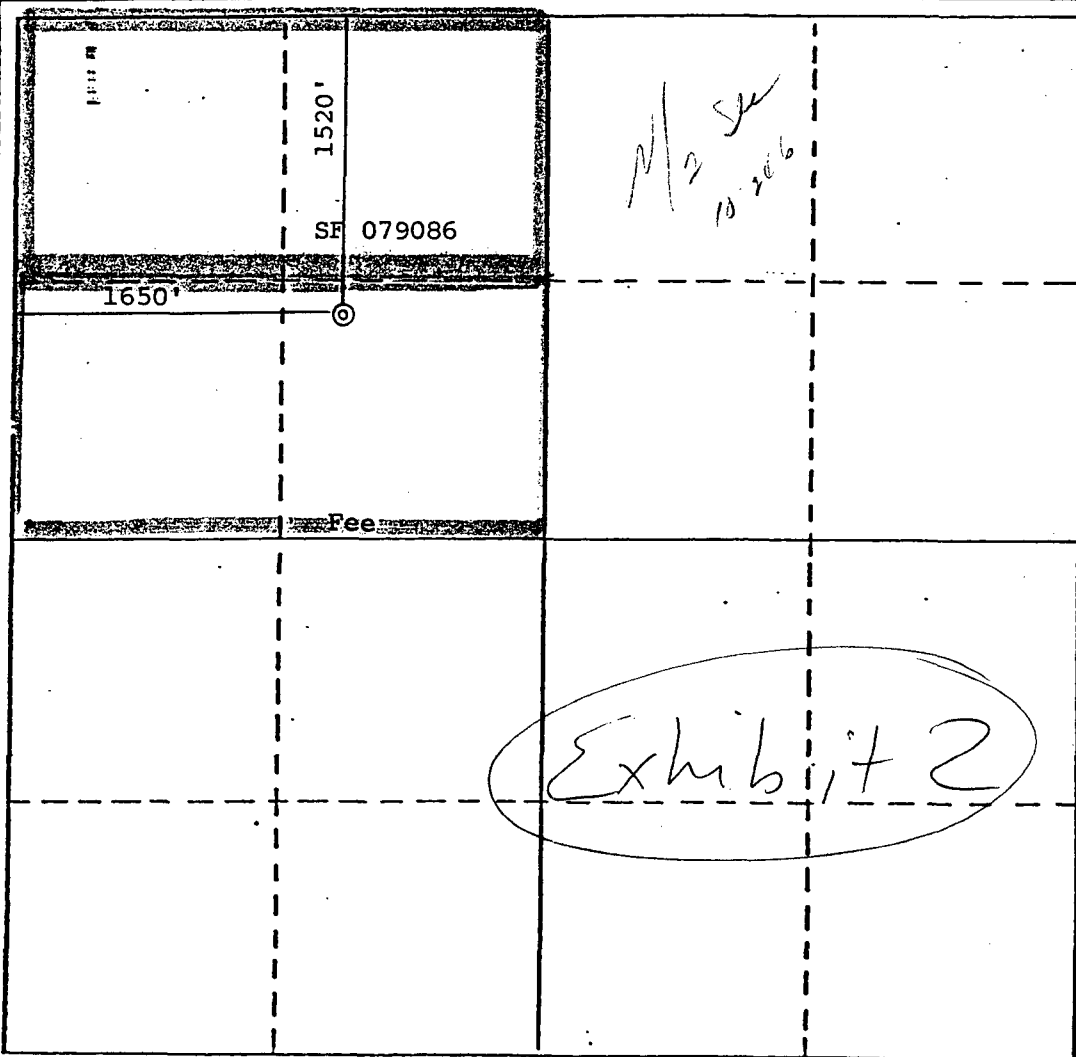
Operator Merrion Oil & Gas Corporation			Lease Canada Mesa Com		Well No. 4E
Unit Letter F	Section 10	Township 24N	Range 6W	County Rio Arriba	
Actual Footage Location of Well: 1520 feet from the North line and 1650 feet from the West line					
Ground Level Elev. 6441	Producing Formation Gallup	Pool Devils Fork Gallup		Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

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

Name  
Steve S. Dunn  
Position  
Operations Manager  
Company  
Merrion Oil & Gas Corporation  
Date  
10/4/83

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
August 13, 1983  
Registered Professional Engineer and/or Land Surveyor  
Fred B. Kerr Jr.  
Certificate No.  
3950



# IL CONSERVATION DIVISION

NEW MEXICO  
NATURAL RESOURCES DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102  
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

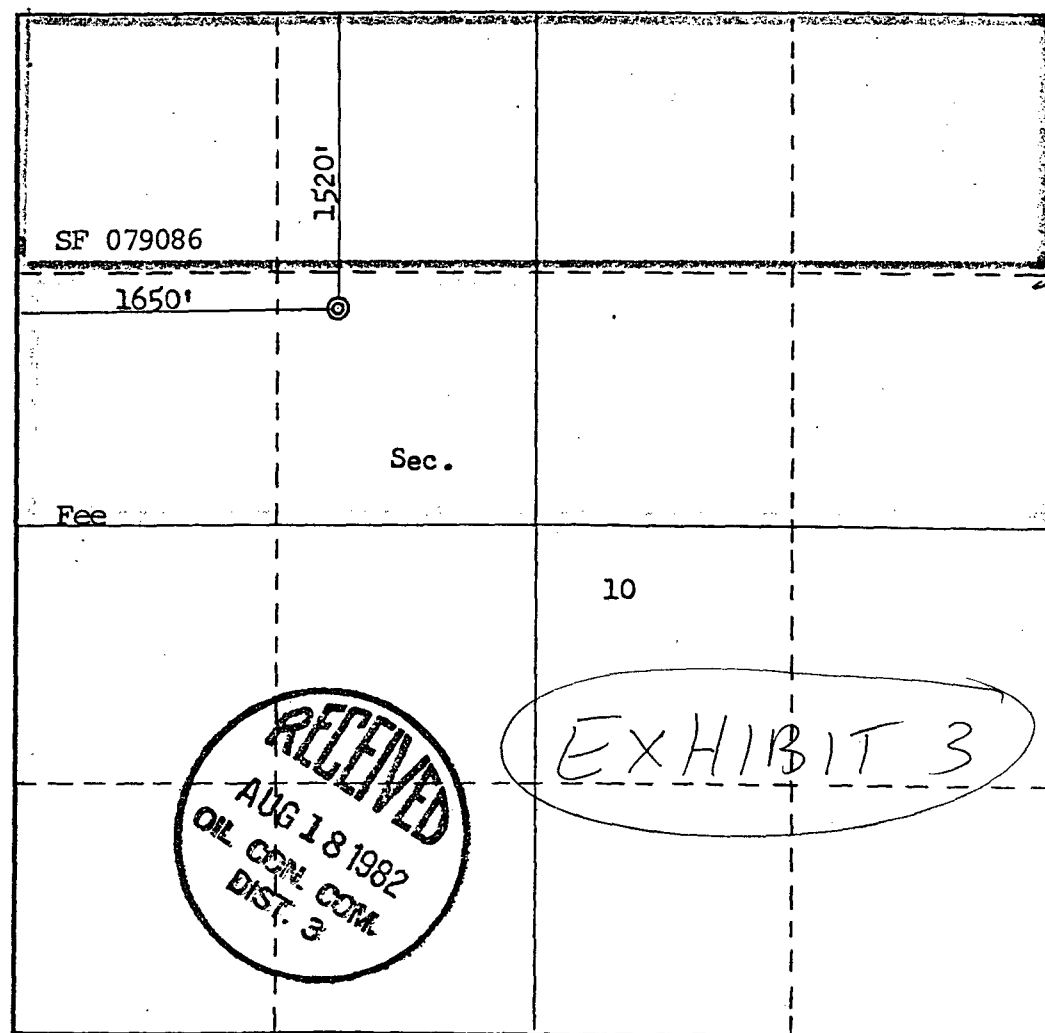
MERRION OIL & GAS CORPORATION			Lease CANADA MESA COM		Well No. 5
Letter F	Section 10	Township 24N	Range 6W	County Rio Arriba	
Actual Footage Location of Well:					
1520 feet from the North		line and 1650 feet from the West		line	
Ground Level Elev. 6441	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: N/320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



## CERTIFICATION

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

*Steve S. Dunn*  
Name

Steve S. Dunn

Position

Operations Manager

Company

Merrion Oil & Gas Corp.

Date

8/16/82

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

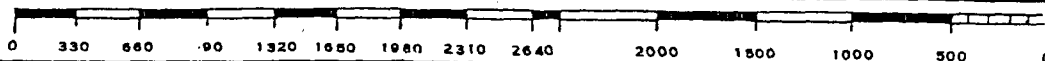
August 13, 1982

Registered Professional Engineer and/or Land Surveyor

*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

Certificate No.

3950

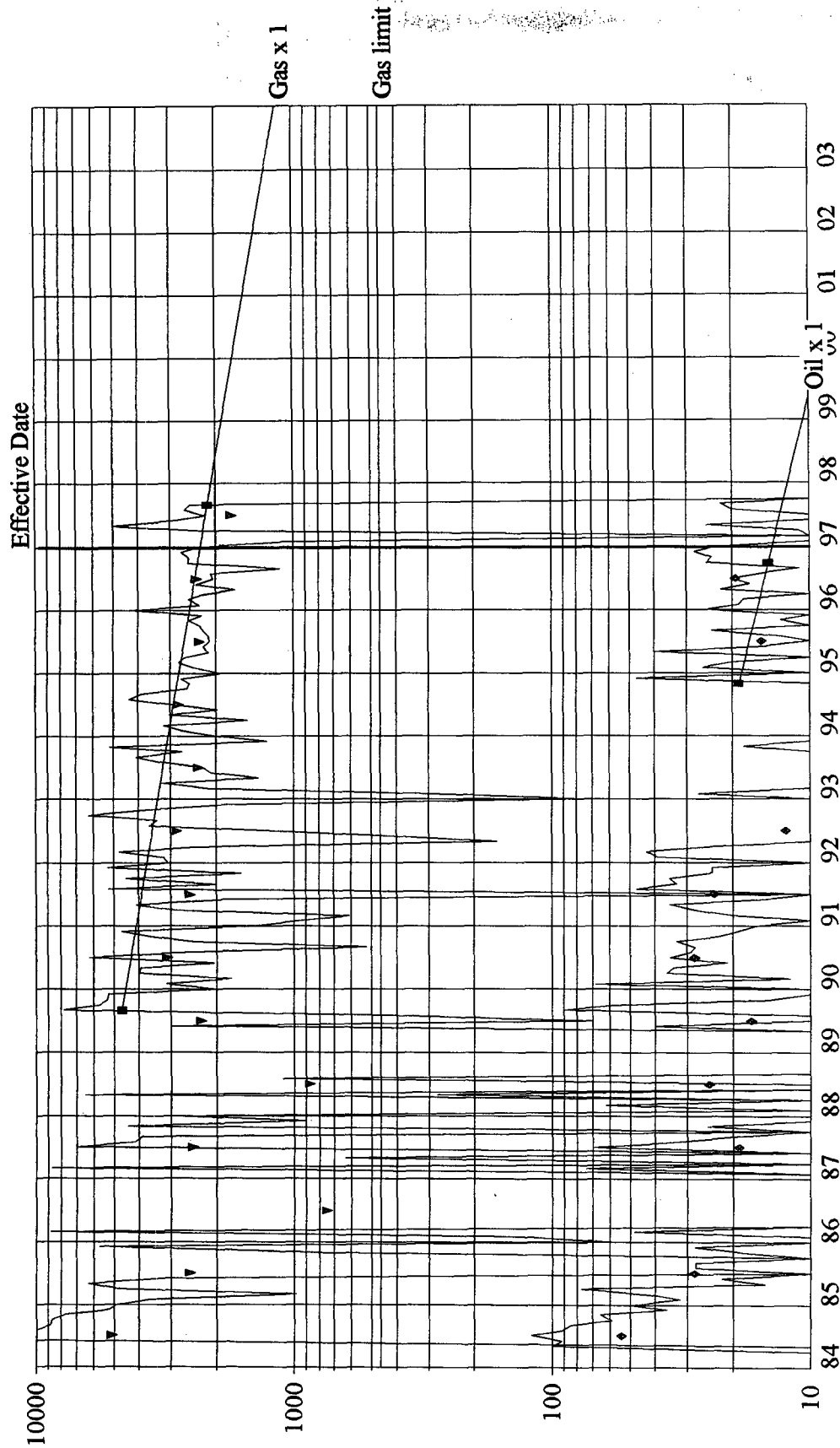




# PRODUCTION GRAPH

8:37:13 p - 11/5/97

Canada Mesa 4E DK (00004E - 100%), Basin DK



Canada Mesa 4E DK (00004E - 100%)

Basin DK

FH

Rio Arriba, NM

[3003923057]

10F 24N 6W

Cumulative:  
Remaining:  
Ultimate:

Oil (bbl)	Gas (mcf)	Water (bbl)
3,182	407,195	0
1,070	225,791	0
4,252	632,986	0

EXHIBIT 5

**Exhibit 6**  
**Notification of Offset Operators**

The following operators received copies of this application via certified mail:

Burlington Resources  
P.O. Box 4289  
Farmington, New Mexico 87499

M & M Production & Operation Inc.  
P.O. Box 175  
Counselor, New Mexico 87018

Dugan Production  
P.O. Box 420  
Farmington, New Mexico 87499

**Exhibit 7**  
**Notification of Interest Owners**

The following interest owners received copies of this application via certified mail.

<u>Name</u>	<u>Address</u>
W R Beavers	3613 Cedar Springs, Dallas, TX 75219
Rubie Lee Bell	P.O. Box 2052, Longview, TX 75606
H S Bennett	P.O. Box 1401, Dallas, TX 75221
Frank Caraway	P.O. Box 982, San Angelo, TX 76902
Leo Otto Craft	184 N. Gordon Way, Los Altos, CA 94022
Debra Lee DuPray	12040 Jefsumark Circle, Tucson, AZ 85749
A S Genecov Estate	P.O. Box 132450, Tyler, TX 75713
Estate of Kathlyn I. Gibson	P.O. Box 546, Tesuque, NM 87506
Mabel Glenn Ham Revocable Trust	P.O. Box 15040, Santa Fe, NM 87506
Gregory D. Harkins	2720 El Capitan Drive, Colorado Springs, CO 80918
Glenn D. Hughes	2321 Candelaria NW, Albuquerque, NM 87107
Minerals Management Service	P.O. Box 5810, TA, Denver, CO 80217
M & M Production & Operation	P.O. Box 175, Counselor, NM 87018
Ethel Parnell	503 W. Duarte, #5, Arcadia, CA 91006
Jane Pitkin	503 W. Duarte, #6, Arcadia, CA 91006
W A Pounds, Jr.	2888 Bluff Street, Boulder, CO 80301
Estate of Bennie Roosth	P.O. Box 2019, Tyler, TX 75701
M B Rudman	4700 First City Center, 1700 Pacific Ave, Dallas, TX 75201
The Rudman Partnership	4700 First City Center, 1700 Pacific Ave, Dallas, TX 75201
Alvrone Sater Trustee	P.O. Box 2509, Evansville, IN 47714
Alvrone Sater	P.O. Box 2509, Evansville, IN 47714
Ronald E. Sater	P.O. Box 2509, Evansville, IN 47714
Elizabeth White Family	P.O. Box 780099, Dallas, TX 75378