

## 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

Conoco Inc.

10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Ludwick LS

#16M

Section 31, T-30-N, R-10-W, O

San Juan

Lease

Well No

Unit Ltr Sec Twp Rge

County

OGRID NO. 005073

Property Code

API NO.

Spacing Unit Lease Types: (check 1 or more)

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	Blanco Mesaverde 72319		Basin Dakota 71599
2. TOP and Bottom of Pay Section (Perforations)	4245-4845'		6705-6805'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Expected Flowing		Expected Flowing
5. Bottomhole Pressure	a (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	607		765
Gas & Oil - Flowing: Measured Current	b(Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1224		2482
6. Oil Gravity (°API) or Gas BT Content	1200 est		1200 est
7. Producing or Shut-In?			
Production Marginal? (yes or no)	No		Yes
• If Shut-In give date and oil/gas/water rates of last production	Date Rates	Date Rates	Date Rates
Note For new zones with no production history applicant shall be required to attach production estimates and supporting data			
• If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	To be supplied upon completion	To be supplied upon completion	To be supplied upon completion
8. Fixed Percentage Allocation Formula - % of each zone	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?

If not, have all working, overriding, and royalty interests been notified by certified mail?  
Have all offset operators been given written notice of the proposed downhole commingling?☒ Yes ☐ No  
☒ 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 others ☒ 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

Kay Maddox

TITLE Regulatory Agent

DATE 3/26/98

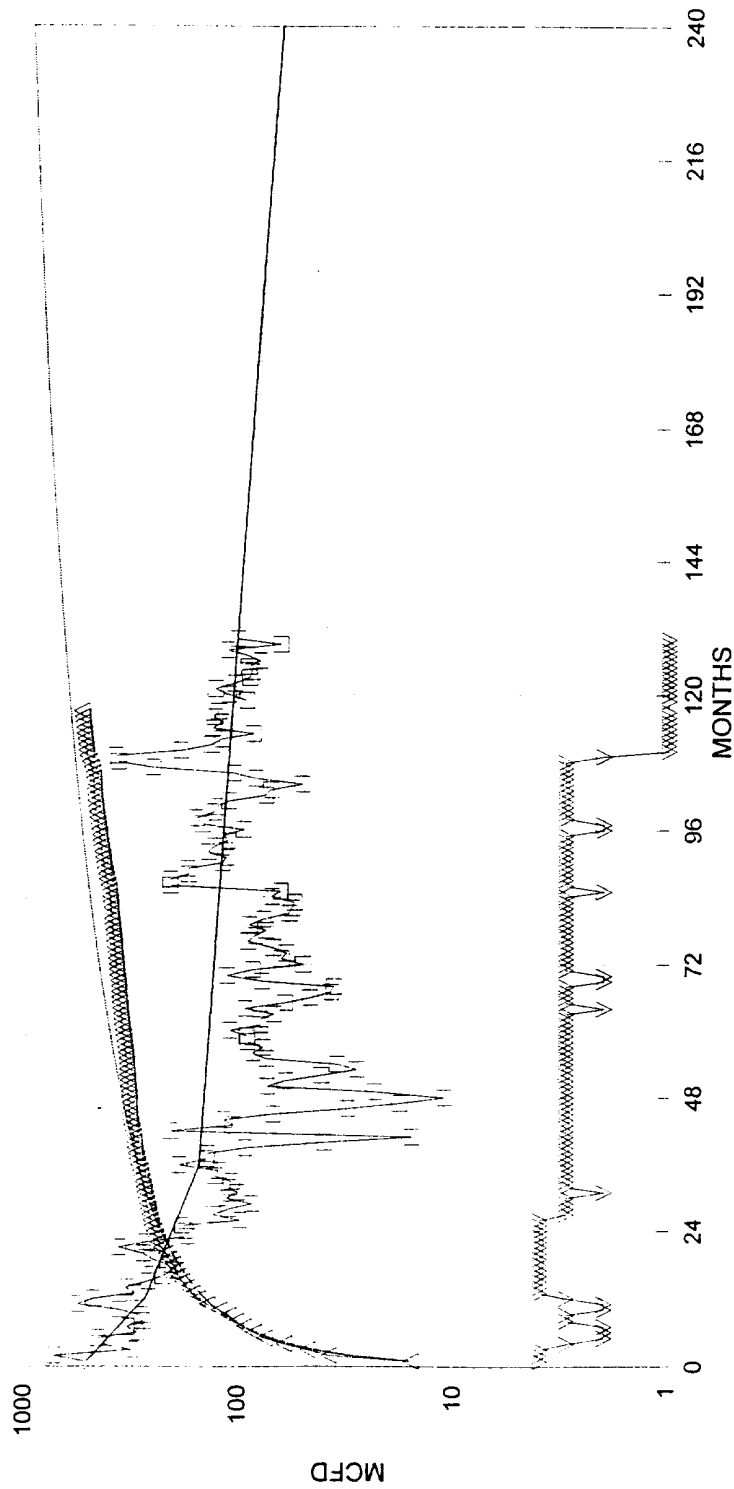
TYPE OR PRINT NAME Kay Maddox

TELEPHONE NO. (915) 686-5798

APPLICATION FOR DOWNHOLE COMMINGLING  
Ludwick LS 16M (31O 30N 10W)

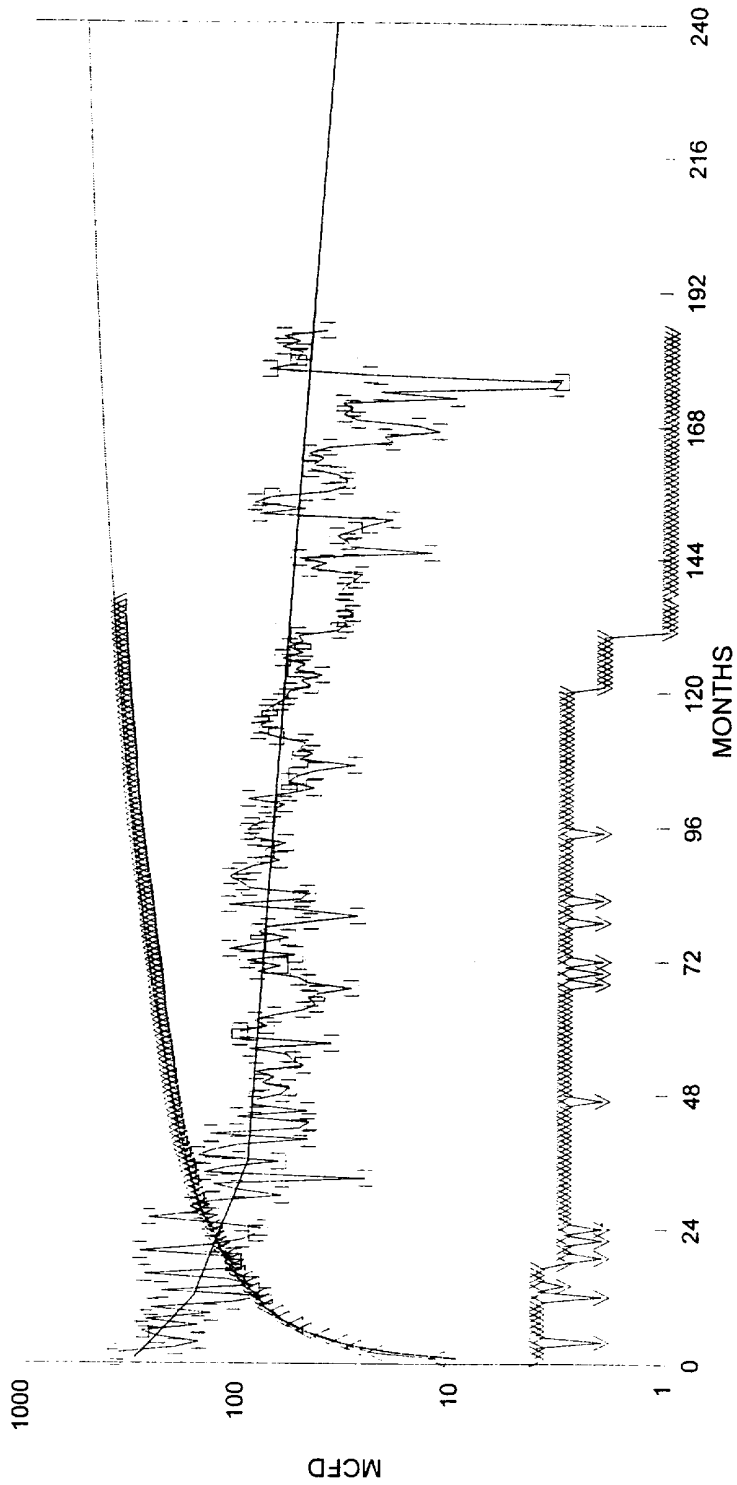
As shown in the attached production plot for offsets to the Ludwick LS 16M, estimated ultimate recoveries and initial production rates from infill wells to the Dakota formation are insufficient to justify drilling stand alone wells. Furthermore, production plots from each zone indicate a similar decline profile and a fixed allocation formula can be utilized. Upon completion, both zones will be tested and stabilized flow rates will be used to allocate production from each zone. This procedure is common practice in Burlington's 29-7 Unit and reference is made to Order R-10697 as it applies to downhole commingling of marginal zones and the allocation of production between such zones.

**NORMALIZED MESAVERDE PRODUCTION**  
**4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W**



NORMALIZED AVG:		RISKED AVG:		0% RISK	
1220	MMCF EUR	1220	MMCF EUR	550	MCFD IP
940	MMCF IN 20 YRS	940	MMCF IN 20 YRS	50.0%	DECLINE, 1ST 12 MONTHS
25	MCFD E.L.	25	MCFD E.L.	25.0%	DECLINE, NEXT 24 MONTHS
0.0021	bbl/mcf oil yield	0.0021	bbl/mcf oil yield	5.0%	FINAL DECLINE

**NORMALIZED DAKOTA PRODUCTION**  
**4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W**



NORMALIZED AVG.		RISKED AVG:		0% RISK	
648	MMCF EUR	648	MMCF EUR	325	MCFD IP
555	MMCF IN 20 YRS	555	MMCF IN 20 YRS	50.0%	DECLINE, 1ST 12 MONTHS
25	MCFD E.L.	25	MCFD E.L.	25.0%	DECLINE, NEXT 24 MONTHS
0.0050	bbl/mcf oil yield	0.0050	bbl/mcf oil yield	5.0%	FINAL DECLINE

District II  
PO Drawer 88, Aztec, NM 88211-0710

District III  
1000 Rio Grande Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form O-10  
Revised February 21, 1993  
Instructions on back  
Submit to Appropriate District Office  
State Leases - 4 Copies  
Fed Leases - 3 Copies

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code	*Pool Name
		72319 / 71599	BLANCO MESA/ERDE / BASIN DAKOTA
*Property Code	*Property Name		*Well Number
	LUDWICK LS		15M
*OBRIID No	*Operator Name		*Elevation
005073	CONOCO, INC.		5932'

#### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
0	31	30N	10W		1005	SOUTH	1850	EAST	SAN JUAN

#### <sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<sup>16</sup> 1212.42'	1303.50'	2607.00'		<sup>17</sup> OPERATOR CERTIFICATION
8	7	6	5	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
2618.22'				Signature
				Mike L. Mankin
9	10	11	12	Printed Name
				Right-Of-Way Agent
				Title
				2-2-98
				Date
				<sup>18</sup> SURVEYOR CERTIFICATION
				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 belief.
16	15	14	13	FEBRUARY 13, 1993
				Date of Survey
				Signature and Seal of Professional Surveyor
17	18	19	20	NEALE C. EDWARDS
1156.32'	1284.36'	1005'	1850'	NEW MEXICO
		2644.62'		6857
				REGISTERED PROFESSIONAL SURVEYOR
				6857
				Certification

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE  
OTHER INFORMATION TO  
REVERSE SIDE

FORM APPROVED  
OMB NO 1004-0136  
Expires February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK a. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> b. TYPE OF WELL SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			2. LEASE DESIGNATION AND SERIAL NO SF 078194		
3. NAME OF OPERATOR Conoco Inc.			4. IF INDIAN, ALLOTTEE OR TRIBE NAME		
5. ADDRESS AND TELEPHONE NO 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 915-686-5794			7. UNIT AGREEMENT NAME		
6. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 1005' FSL & 1850' FEL At proposed prod. zone 1005' FSL & 1850' FEL			8. FARM OR LEASE NAME WELL NO LUDWICK LS #16M		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*			9. API WELL NO		
5. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if Any)			10. FIELD AND POOL, OR WILDCAT Blanco MV / Basin Dakota		
8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			11. SEC. T. R. M. OR BLK AND SURVEY OR AREA Sec. 31. T30N. R10W		
16. NO OF ACRES IN LEASE			12. COUNTY OR PARISH San Juan		
17. NO. OF ACRES ASSIGNED TO THIS WELL 320			13. STATE NM		
19. PROPOSED DEPTH 7233'			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc ) 5932' GR			22. APPROX. DATE WORK WILL START* 4/15/98		

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 9-5/8"	36#	250'	135 sxs, circ.
8-3/4"	K-55, 7"	23#	2642'	320 sxs, circ.
6-1/4"	K-55, 4-1/2"	9.5#	6968'	465sxs, toc @ 2500'

It is proposed to drill a vertical wellbore to the Blanco Mesaverde and Basin Dakota Pools. NOS was filed 2/21/98. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & Acreage Dedication Plat (C-102).
2. Proposed Well Plan Outline.
3. Cementing Plan.
4. Blowout Preventer Hookup.
5. Surface Use Plan with Production Facility Layout.
6. Pipeline survey plat.

This application includes ROW's for the well pad, access road and pipeline.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED Mike L. Mankin TITLE Right-of-Way Agent DATE March 3, 1998

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Conoco, Inc.  
Ludwick LS #16M  
Section 31, T-30-N, R-10-W, O  
San Juan, New Mexico

RE: Application to Downhole Commingle (C-107A)

**Notification Of Offset Operators:**

Dugan Production Corp.  
PO Box 420  
Farmington, NM 87499-0420

Amoco  
PO Box 800  
Denver, CO 80201

Burlington Resources  
PO Box 4239  
Houston, TX 77210-4239