

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 87505-6429

Form 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

Operator

Address

Ludwick LS

#19M

Section 5, T-29-N, R-10-W, F

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)	4165-4765'		6695-6795'
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) 605	a.	a. 764
Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	b.(Original) 1221	RECEIVED MAR 30 1998 OIL CON. DIV. DIST. 3	b. 2481
6. Oil Gravity (°API) or Gas BT Content	1200 est		1200 est
7. Producing or Shut-In?	No		Yes
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 To be supplied upon Completion	Date Rates To be supplied upon Completion	Date Rates To be supplied upon Completion
8. Fixed Percentage Allocation Formula - % for 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? ☒ 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 others ☒ 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. 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.

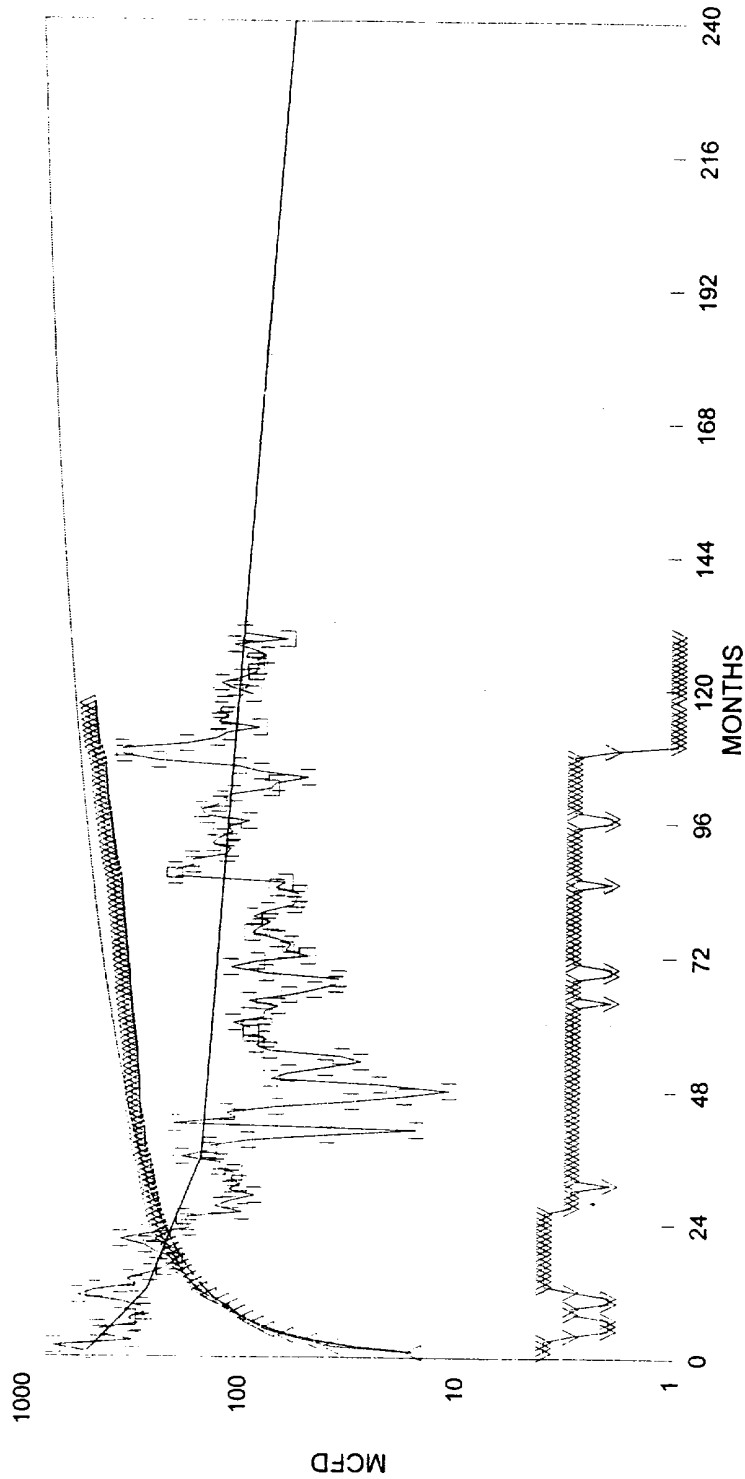
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE 3/24/98

TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

As shown in the attached production plot for offsets to the Ludwick LS 19M, 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.

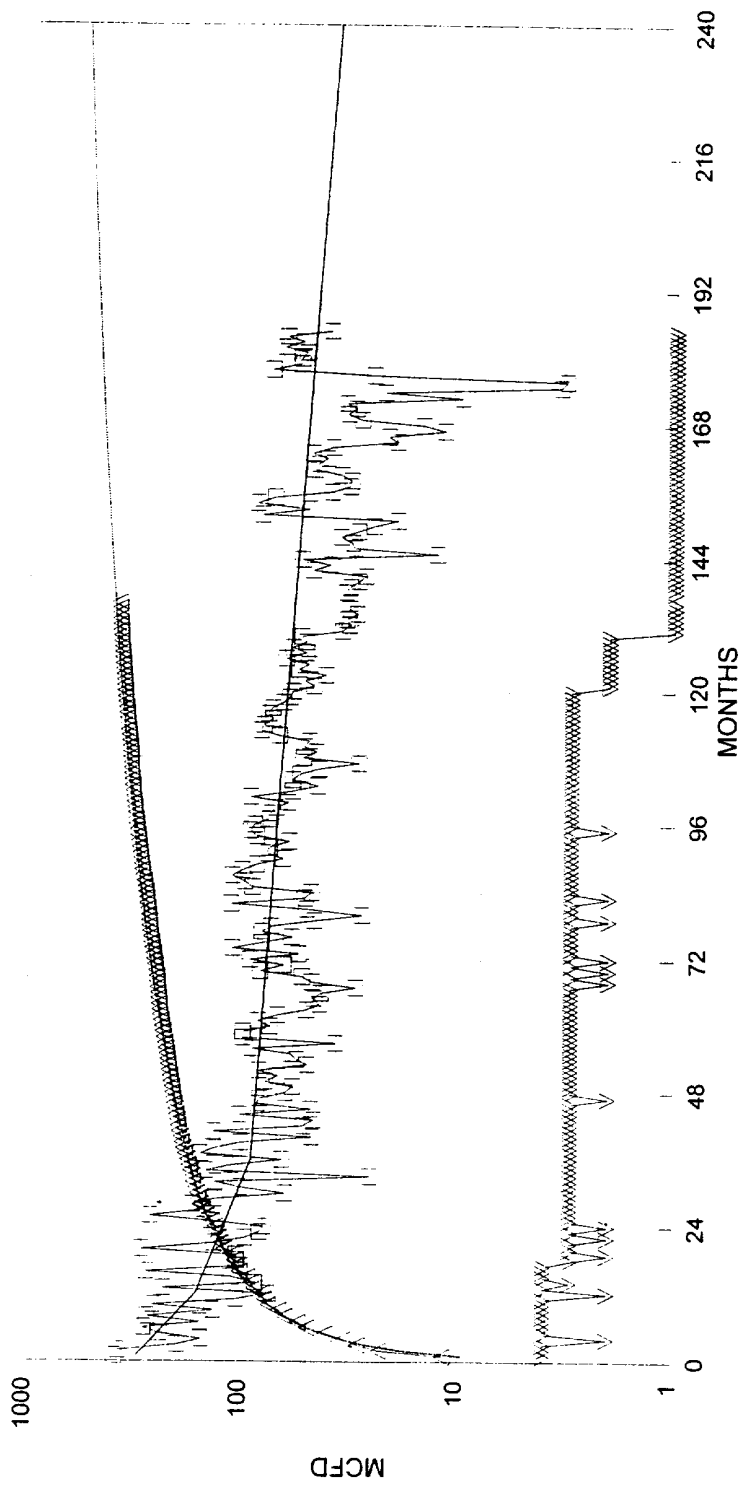
NORMALIZED MESAVERDE PRODUCTION
4 WELLS SINCE 1980; OFFSET TO SECTION 36-30N-11W



FIT MCFD
 WELLS ON PRODUCTION
 NORMALIZED MCFD
 FIT CUM MMCF
 NORM CUM MMCF
 RISKED MCFD

NORMALIZED AVG:	1220 MMCF EUR	550 MCFD IP	0% RISK
	940 MMCF IN 20 YRS	50% DECLINE, 1ST 12 MONTHS	550 MCFD IP
	25 MCFD E.L.	25% DECLINE, NEXT 24 MONTHS	50.0% DECLINE, 1ST 12 MONTHS
	0.0021 bbl/mcf oil yield	5.0% FINAL DECLINE	25.0% DECLINE, NEXT 24 MONTHS
RISKED AVG:	1220 MMCF EUR	550 MCFD IP	5.0% FINAL DECLINE
	940 MMCF IN 20 YRS	50% DECLINE, 1ST 12 MONTHS	50.0% DECLINE, 1ST 12 MONTHS
	25 MCFD E.L.	25% DECLINE, NEXT 24 MONTHS	25.0% DECLINE, NEXT 24 MONTHS
	0.0021 bbl/mcf oil yield	5.0% FINAL DECLINE	5.0% FINAL DECLINE

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



FIT MCFD
 WELLS ON PRODUCTION
 NORMALIZED MCFD
 FIT CUM MMCF
 NORM CUM MMCF
 RISKED MCFD

NORMALIZED AVG:

648 MMCF EUR
 555 MMCF IN 20 YRS
 25 MCFD E.L.
 0.0050 bbl/mcf oil yield

325 MCFD IP

50% DECLINE, 1ST 12 MONTHS
 25% DECLINE, NEXT 24 MONTHS
 5.0% FINAL DECLINE

RISKED AVG:

648 MMCF EUR
 555 MMCF IN 20 YRS
 25 MCFD E.L.
 0.0050 bbl/mcf oil yield

0% RISK

325 MCFD IP
 50.0% DECLINE, 1ST 12 MONTHS
 25.0% DECLINE, NEXT 24 MONTHS
 5.0% FINAL DECLINE

Prepared by: SWJ

3010DKN.WK4

03/24/98

District II
 40, Box 2088, Santa Fe, NM 87504-2088

District III
 4000 Rio Brazos Rd., Aztec, NM 87410

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

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

WELL LOCATION REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code	*Pool Name
		72319 / 71599	BLANCO MESAVERGE / BASIN DAKOTA
*Property Code	*Property Name		*Well Number
	LUDWICK LS		13M
*GRID No.	*Operator Name		*Elevation
005073	CONOCO, INC.		5247

10 Surface Location

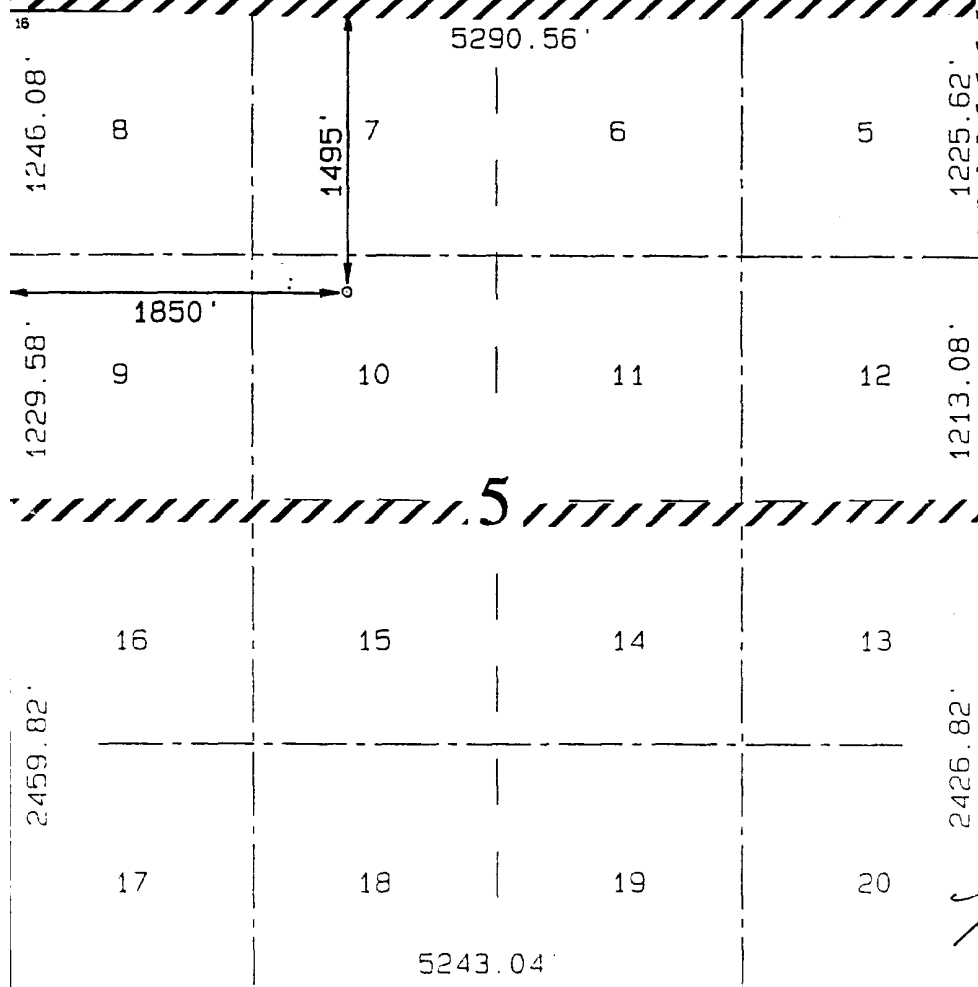
UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County
F	5	29N	10W		1495	NORTH	1850	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres	*Joint or Infill	*Consolidation Code	*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



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

Signature: *Mike L. Mankin*
 Printed Name: Mike L. Mankin
 Title: Right-Of-Way Agent
 Date: 2-2-98

18 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.

Date of Survey: FEBRUARY 13, 1998
 Signature and Seal of Professional Surveyor: *Neale C. Edwards*
 NEALE C. EDWARDS
 NEW MEXICO
 6857
 REGISTERED PROFESSIONAL SURVEYOR
 Certificate No. 6857

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO SF 078194	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Conoco Inc.		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500 915-686-5794		8. FARM OR LEASE NAME WELL NO LUDWICK LS #19M	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 1495' FNL & 1850' FWL At proposed prod. zone 1495' FNL & 1850' FWL		9. API WELL NO	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT Blanco MV / Basin Dakota	
5. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA Sec. 5, T29N, R10W	
8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		12. COUNTY OR PARISH San Juan	
16. NO. OF ACRES IN LEASE		13. STATE NM	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5847' 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#	2565'	315 sxs, circ.
6-1/4"	K-55, 4-1/2"	9.5#	6848'	470 sxs, toc @ 2400'

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.