

DISTRICT I
P.O. Box 1980 Hobbs NM 88241 1980

DISTRICT II
811 South First St Artesia NM 88210 2935

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

Address

Jicarilla K

#13 E

Section 11, T-25-N, R-5-W, L

Rio Arriba

Lease

Well No

Unit Ltr Sec Two Rge

County

OGRID NO. 005073 Property Code 18023 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)	5247-5608'		7242-7472'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	To Flow		To Flow
5. Bottomhole Pressure	a (Current)	a	a
Oil Zones - Artificial Lift	562		950
Gas & Oil - Flowing	b (Original)		b
All Gas Zones	1322		2809
Estimated Or Measured Original			
6. Oil Gravity (*API) or Gas BT Content	1260		1248
7. Producing or Shut-In?	To be Completed		To be Completed
Production Marginal? (yes or no)	Yes (expected)		Yes (expected)
• 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 Anticipated 1st Yr average 126 MCFD, 3.5 BOPD	Date Rates	Date Rates Anticipated 1st Yr Average 221 MCFD, 3.3 BOPD
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

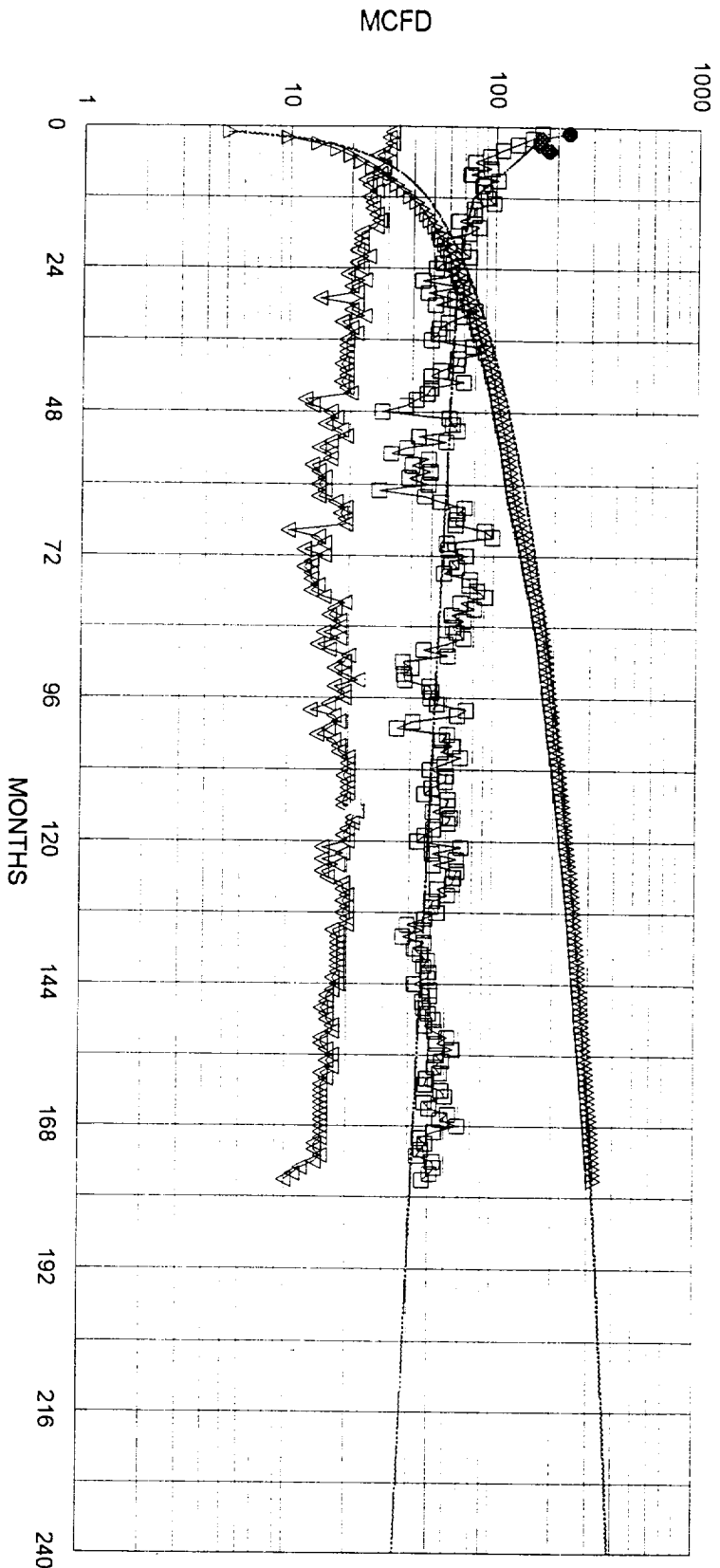
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation 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 4-24-98

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

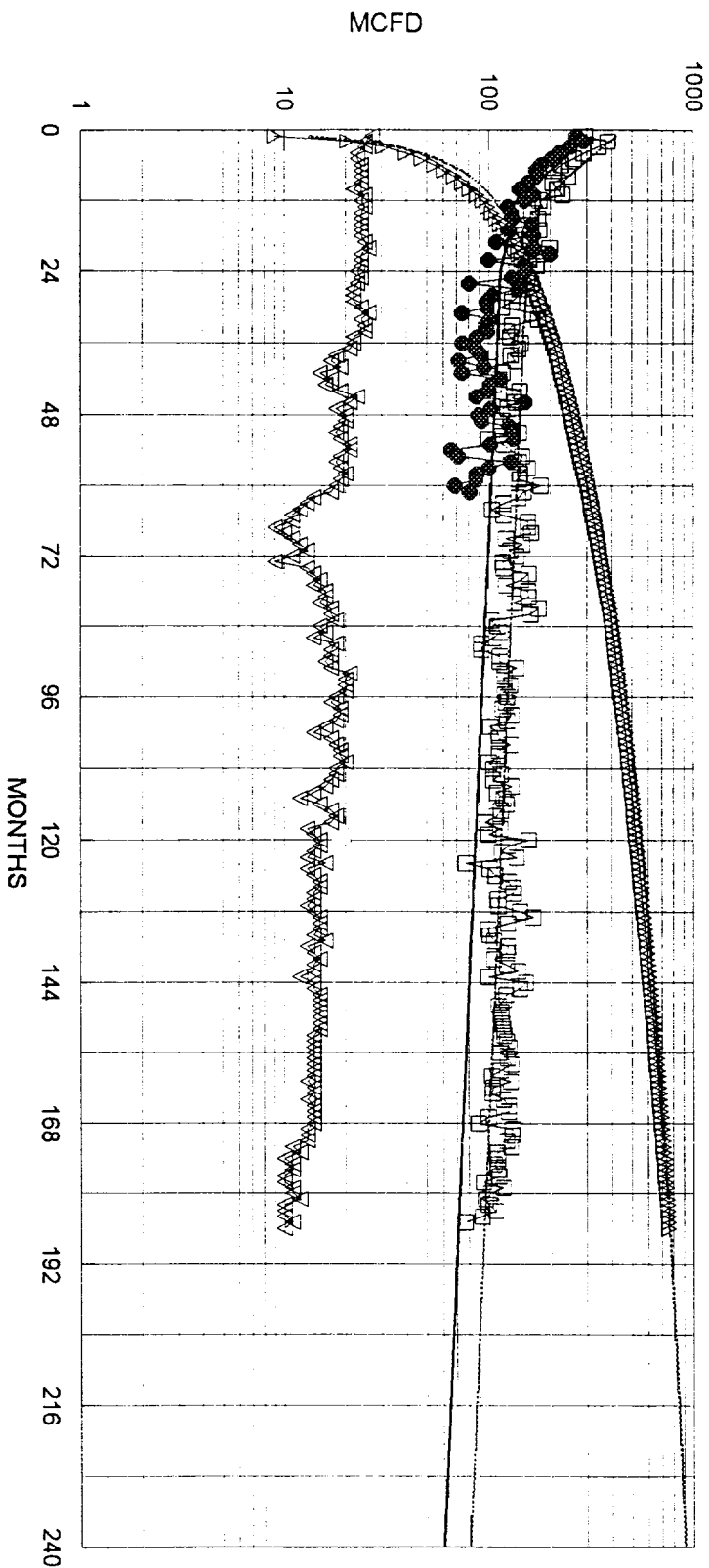
NORMALIZED MESAVERDE PRODUCTION
31 WELLS SINCE 1980; OFFSET TO JICARILLA K LEASE: SE 26N 5W AND NE 25N 05W



NORMALIZED AVERAGE PER WELL & EXPECTED NEW WELL AVG.		NEW RECOMPLETIONS IN 1997:	
536 MMCF EUR	192 MCFD IP	JICARILLA K 10	1D-25N-5W
389 MMCF IN 20 YRS	60% DECLINE, 1ST 12 MONTHS	JICARILLA K 10E	1K-25N-5W
20 MCFD E.L.	15% DECLINE, NEXT 12 MONTHS	JICARILLA K 11	2E-25N-5W
0.0278 bbl/mcf oil yield	3.5% FINAL DECLINE	JICARILLA K 11E	2B-25N-5W
		JICARILLA K 15	11-25N-5W
		JICARILLA K 15E	1A-25N-5W

NORMALIZED DAKOTA PRODUCTION

27 WELLS SINCE 1980; 16 SECTIONS SURROUNDING JIC. K LEASE (SEC 1,2,11, & 12; 25N-05W)



— FIT MCFD □ NORMALIZED MCFD △ NORM CUM MMCF ▽ WELLS ON PRODUCTION
 ---- FIT CUM MMCF — RISKED MCFD ◆ 4 WELLS SINCE 1992

NORMALIZED AVG PER WELL:

1531 MMCF EUR
 913 MMCF IN 20 YRS
 20 MCFD E.L.
 0.0149 bbl/mcf oil yield

450 MCFD IP
 60% DECLINE, 1ST 12 MONTHS
 15% DECLINE, NEXT 12 MONTHS
 3.5% FINAL DECLINE

RISKED AVG: 25% RISK (EXPECTED NEW COMPLETION AVERAGE)

1097 MMCF EUR
 684 MMCF IN 20 YR
 20 MCFD E.L.
 0.0149 bbl/mcf oil yield

338 MCFD IP
 60.0% DECLINE, 1ST 12 MONTHS
 15.0% DECLINE, NEXT 12 MONTHS
 3.5% FINAL DECLINE

APPLICATION FOR DOWNHOLE COMMINGLING

Jicarilla K 13E, Unit Letter L, Section 11-T25N-R5W
Rio Arriba County, New Mexico

As shown in the attached production plot for offsets to the Jicarilla K 13E, estimated ultimate recoveries and initial production rates from infill wells to the Dakota and Mesaverde formations are clearly marginal in this area. Mesaverde estimated recoveries in particular do not justify drilling stand alone wells (389 MMCF recovery in 20 years, 536 MMCF ultimate recovery). 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 Conoco's 28-7 Unit and reference is made to Order R-10476-B as it applies to downhole commingling of marginal zones and the allocation of production between such zones.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(Other instruction on
reverse side)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN				LEASE DESIGNATION AND SERIAL NO CONT 145	
1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME JICARILLA	
2. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> RESERVOIR <input checked="" type="checkbox"/> NEUTRAL <input type="checkbox"/>				7. UNIT AGREEMENT NAME	
3. NAME OF OPERATOR Conoco Inc.				8. FARM OR LEASE NAME WELL NO JICARILLA K #13E	
4. ADDRESS AND TELEPHONE NO 10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500				9. API WELL NO	
5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements *) At surface 1450' FSL & 940' FWL At proposed prod. zone 1450' FSL & 940' FWL				10. FIELD AND POOL, OR WILDCAT Blanco MV/Basin Dakota	
11. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*				12. COUNTY OR PARISH Rio Arriba	
12. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if Any)				13. STATE NM	
13. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.				14. NO OF ACRES IN LEASE 319.5	
14. PROPOSED DEPTH 7772'				15. ROTARY OR CABLE TOOLS Rotary	
15. ELEVATIONS (Show whether DF, RT, GR, etc) 6766' GR				16. APPROX. DATE WORK WILL START* 3/31/98	
23. PROPOSED CASING AND CEMENTING PROGRAM					
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	
11"	K-55, 8-5/8"	24#	300'	130 sxs, circ.	
7-7/8"	K-55, 5-1/2"	15.5#	7472'	1085 sxs, circ.	

It is proposed to drill a vertical wellbore to be downhole commingled in the Blanco Mesaverde and Basin Dakota Pools following the acquisition of sufficient production test data for allocation purposes. A downhole commingling application will be filed with the BLM and NMOCD prior to commingling. An NOS was filed 10/31/97. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & Acreage Dedication Plat (C-102) and other associated plats.
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 and access road.

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.

24. Mike L. Mankin
SIGNED Right of Way Agent TITLE 3/9/98 DATE
(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.

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code		*Pool Name					
		72319/71599		Blanco Mesaverde/Basin Dakota					
*Property Code		*Property Name						*Well Number	
18023		JICARILLA K						13E	
*CGRID No		*Operator Name						*Elevation	
005073		CONOCO, INC.						6766	
10 Surface Location									
*L or Lot No	*Section	*Township	*Range	*Lot Idn	*Feet from the	*North/South line	*Feet from the	*East/West line	*County
L	11	25N	5W		1450	South	940	West	RIO ARriba
11 Bottom Hole Location If Different From Surface									
*L or Lot No	*Section	*Township	*Range	*Lot Idn	*Feet from the	*North/South line	*Feet from the	*East/West line	*County
*Dedicated Acres		*Joint or Infill		*Consolidation Code		*Order No.			
319.5									

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

		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike L Mankin</i> Signature</p> <p>Mike L. Mankin Printed Name</p> <p>Right-of-Way Agent Title</p> <p>3-3-97 Date</p>
<p>11</p>		<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>NOVEMBER 19, 1997 Date of Survey</p> <p><i>Neale C. Edwards</i> Signature and Seal of Professional Surveyor</p> <p>NEALE C. EDWARDS NEW MEXICO 6857 REGISTERED PROFESSIONAL SURVEYOR</p>

Jicarilla K # 13E
Section 11, T-25-N, R-5-W, L
Rio Arriba, New Mexico

RE: Downhole Commingle C107A Application

Notification of Offset Operators:

Amoco, Inc.
PO Box 800
Denver, CO 80201

A copy of the C-107A has been sent to the above listed party/parties.

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jic. 145 K #13

1. The individual production zones will be tested every three years, or more often if production rates indicate a change to allocation factors, to verify that the allocation factors and methods remain proper.
2. Production from downhole commingled wells are to be reported with an alpha character, "C" (ie C1, C2, etc).
3. The following modifications to your downhole commingling program are to be made :

Submit production allocation formula upon completion of testing.

Submit well bore diagram upon completion of well.