



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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

DISTRICT II  
811 South First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS:  
 Administrative  Hearing

DISTRICT III  
1000 Rio Brazos Rd. Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE  
 YES  NO

Operator Conoco Inc. Address 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Lease Jicarilla K Well No # 14E Section 11, T-25-N, R-5-W, B County Rio Arriba

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)	5242-5603'		7226-7456'
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: Estimated Current	562		950
Gas & Oil - Flowing: Measured Current	b(Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1321		2808
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  <small>Note For new zones with no production history applicant shall be required to attach production estimates and supporting data</small>  • If Producing, date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	Anticipated 1st Yr average 126 MCFD, 3.5 BOPD	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 4/24/96

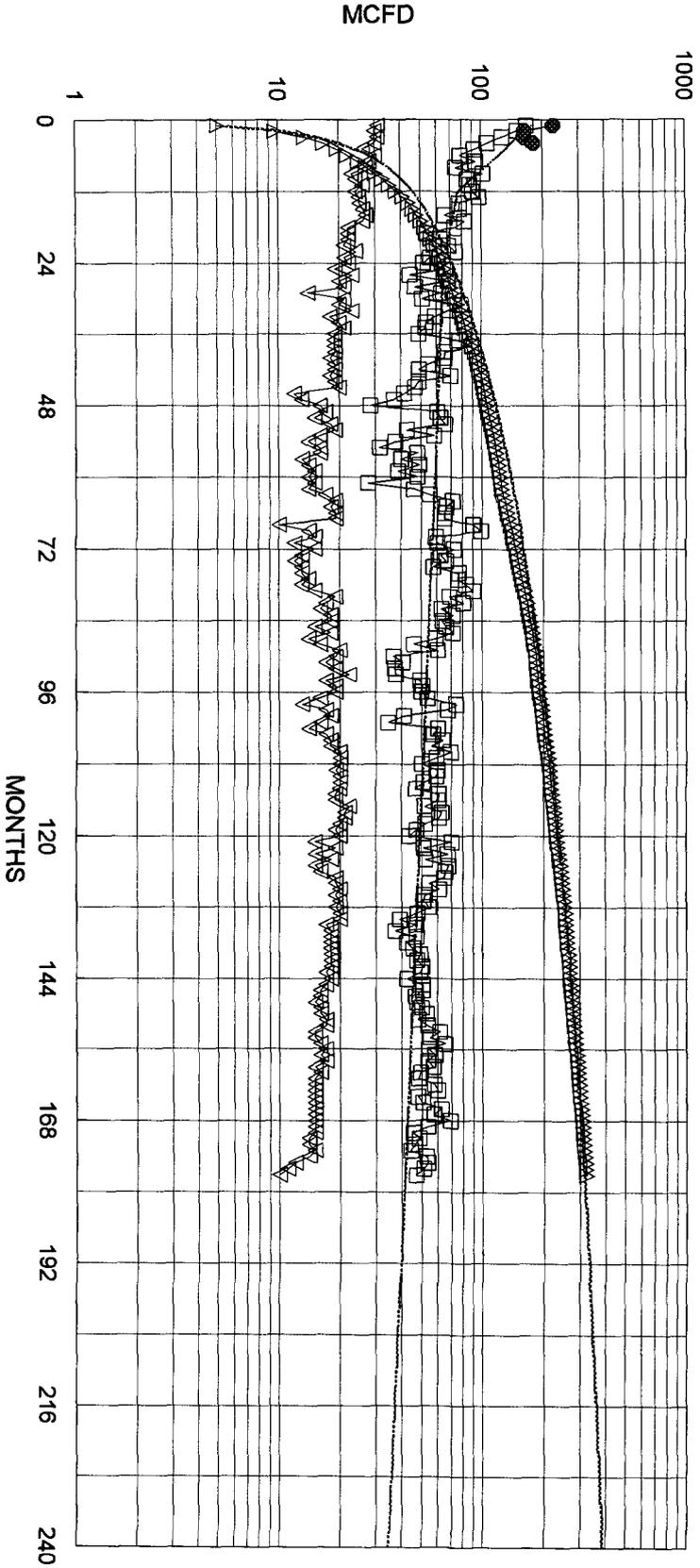
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

**APPLICATION FOR DOWNHOLE COMMINGLING**

Jicarilla K 14E, Unit Letter B, Section 11-T25N-R5W  
Rio Arriba County, New Mexico

As shown in the attached production plot for offsets to the Jicarilla K 14E, 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). Futhermore, 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.

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



— FIT MCFD                      □ NORMALIZED MCFD                      △ NORM CUM MMCF  
 △ WELLS ON PRODUCTION                      --- FIT CUM MMCF                      ● 6 NEW 1997 RECOMPLETIONS

**NORMALIZED AVERAGE PER WELL & EXPECTED NEW WELL AVG.**

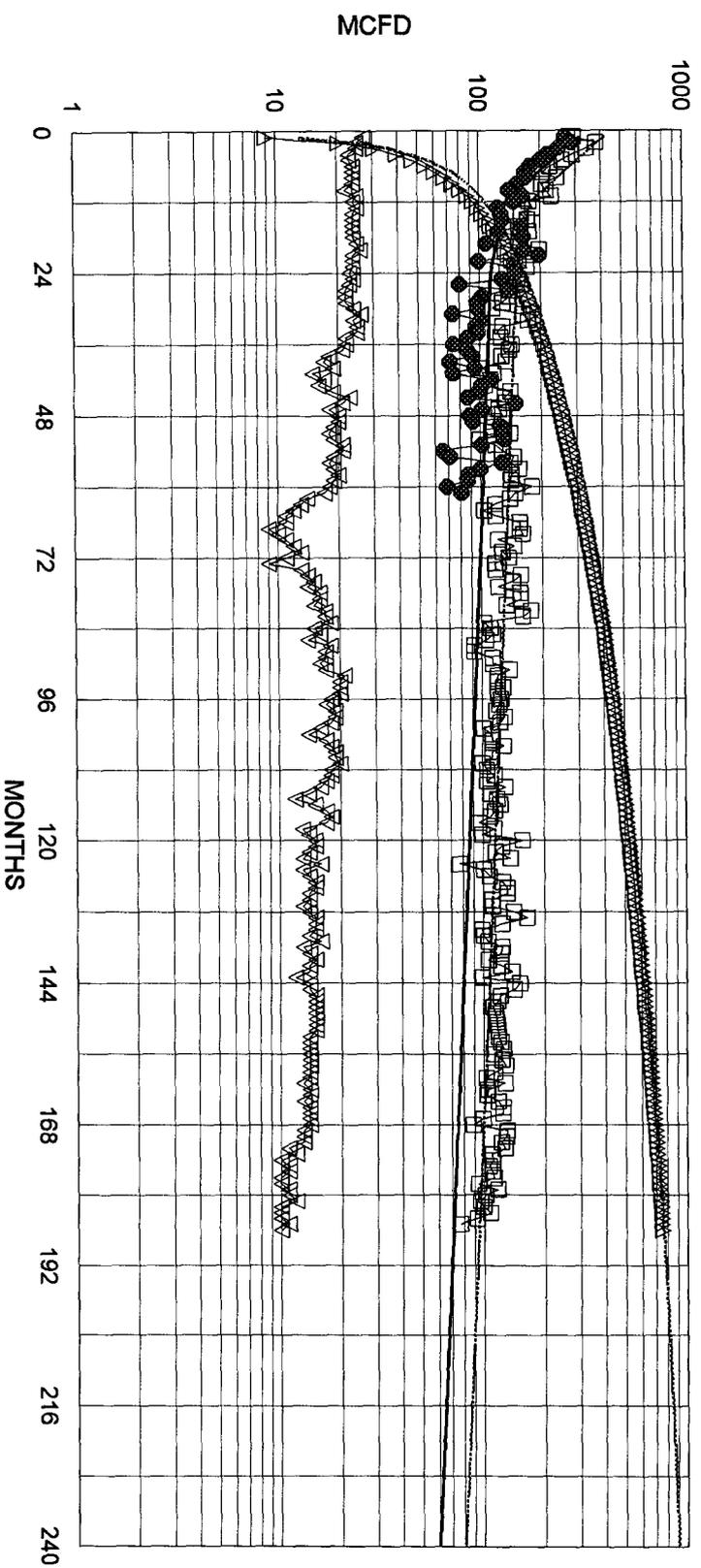
536 MMCF EUR  
 389 MMCF IN 20 YRS  
 20 MCFD E.L.  
 0.0278 bbl/mcf oil yield

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

**NEW RECOMPLETIONS IN 1997:**

JICARILLA K 10	1D-25N-5W	JICARILLA K 15	1I-25N-5W
JICARILLA K 10E	1K-25N-5W	JICARILLA K 15E	1A-25N-5W
JICARILLA K 11	2E-25N-5W		
JICARILLA K 11E	2B 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      338 MCFD IP  
 684 MMCF IN 20 YR      60.0% DECLINE, 1ST 12 MONTHS  
 20 MCFD E.L.      15.0% DECLINE, NEXT 12 MONTHS  
 0.0149 bbl/mcf oil yield      3.5% FINAL DECLINE

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. LEASE DESIGNATION AND SERIAL NO <b>CONT 145</b>	
2. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>JICARILLA</b>	
3. UNIT AGREEMENT NAME	
4. FARM OR LEASE NAME WELL NO <b>JICARILLA K #14E</b>	
5. API WELL NO	
6. FIELD AND POOL, OR WILDCAT <b>Blanco MV/Basin Dakota</b>	
7. SEC. T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 11, T25N, R5W</b>	
8. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*	12. COUNTY OR PARISH <b>Rio Arriba</b>
	13. STATE <b>NM</b>
9. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if Any)	16. NO. OF ACRES IN LEASE
10. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	17. NO. OF ACRES ASSIGNED TO THIS WELL <b>320</b>
11. ELEVATIONS (Show whether DF, RT, GR, etc ) <b>6713' GR</b>	19. PROPOSED DEPTH <b>7756'</b>
	20. ROTARY OR CABLE TOOLS <b>Rotary</b>
	22. APPROX. DATE WORK WILL START* <b>4/15/98</b>

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#	7456'	1085 sxs, circ.

It is proposed to drill 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. A NOS was filed 10/31/97. This well will drilled and equipped according to the following 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 wellpad 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. SIGNED Mike L. Mankin TITLE Right-of-Way Agent DATE March 4, 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**

Oil and Gas Division, NM 88 11-1980  
 District I  
 PO Box 2088, Santa Fe, NM 87504-2088  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 PO Box 2088, Santa Fe, NM 87504-2088

Oil and Gas Division  
 Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
 PO Box 2088  
 Santa Fe, NM 87504-2088

Form 0-1  
 Revised February 21, 1988  
 Instructions on back  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

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		14E
*GRID No.	*Operator Name		*Elevation
005073	CONOCO, INC.		6713'

<sup>10</sup> Surface Location

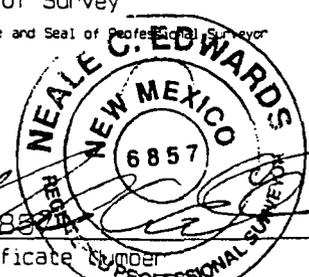
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	11	25N	5W		1190	North	1580	East	RIO ARRIBA

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

UL or lot no.	Section	Township	Range	Lot Idn	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

5280.00'	5273.40'	1190'	1580'	5280.00'	<b>OPERATOR CERTIFICATION</b>	
					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 Right-of-way Agent Title Date 5-5-98		
				<b>SURVEYOR CERTIFICATION</b>		
				I hereby certify that the well location shown on this plat as plotted from field notes of actual surveys made by me under my supervision and that the same is true and correct to the best of my belief.		
				NOVEMBER 19, 1997		
				Date of Survey		
				Signature and Seal of Professional Surveyor		
				 Certificate Number PROFESSIONAL SURVEYOR		
5270.76'						

Jicarilla K #14E  
Section 11, T-25-N, R-5-W, B  
Rio Arriba, New Mexico

RE: Downhole Commingle C107A Application

**Notification of Offset Operators:**

Amoco  
PO Box 800  
Denver, CO 80201

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