

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

Jicarilla K

13

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

Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

County

Spacing Unit Lease Types (check 1 or more)

OGRID NO. 005073

Property Code

18023

API NO.

30-039-20292

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 Pictured Cliffs South 72439	Otero Chacra 82329	Blanco Mesaverde 72319
2. TOP and Bottom of Pay Section (Perforations)	2970-3026'	3858-3884'	5180-5360'
3. Type of production (Oil or Gas)	Gas	Gas	Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	To be completed
5. Bottomhole Pressure	a. (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	378	503	560
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1140	1012	1317
6. Oil Gravity ("API) or Gas BT Content	1274	1204	1324
7. Producing or Shut-In?	Producing	Producing	To be completed
Production Marginal? (yes or no)	Yes	Yes	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
	Est 7/98 67 MCFD, 0 BOPD, 0 BWPD	Est 7/98 22 MCFD, 0 BOPD, 0 BWPD	Production to be allocated by subtraction - See attached table
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 February 16, 1998

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

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

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Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

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OGRID NO. 005073

Property Code

18023

API NO.

30-039-20292

Spacing Unit Lease Types (check 1 or more)

Federal ☒ , State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Lowest Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Basin Dakota 71599		
2. TOP and Bottom of Pay Section (Perforations)	7184-7378'		
3. Type of production (Oil or Gas)	Gas		
4. Method of Production (Flowing or Artificial Lift)	Flowing		
5. Bottomhole Pressure	a (Current)	a.	a.
Oil Zones + Artificial Lift: Estimated Current	949		
Gas & Oil - Flowing: Measured Current	b(Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	2804		
6. Oil Gravity (°API) or Gas BT Content	1275		
7. Producing or Shut-In?	Producing		
Production Marginal? (yes or 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 Est 7/98 44 MCFD, 1 BOPD, 0 BWPD	Date Rates	Date Rates
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

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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

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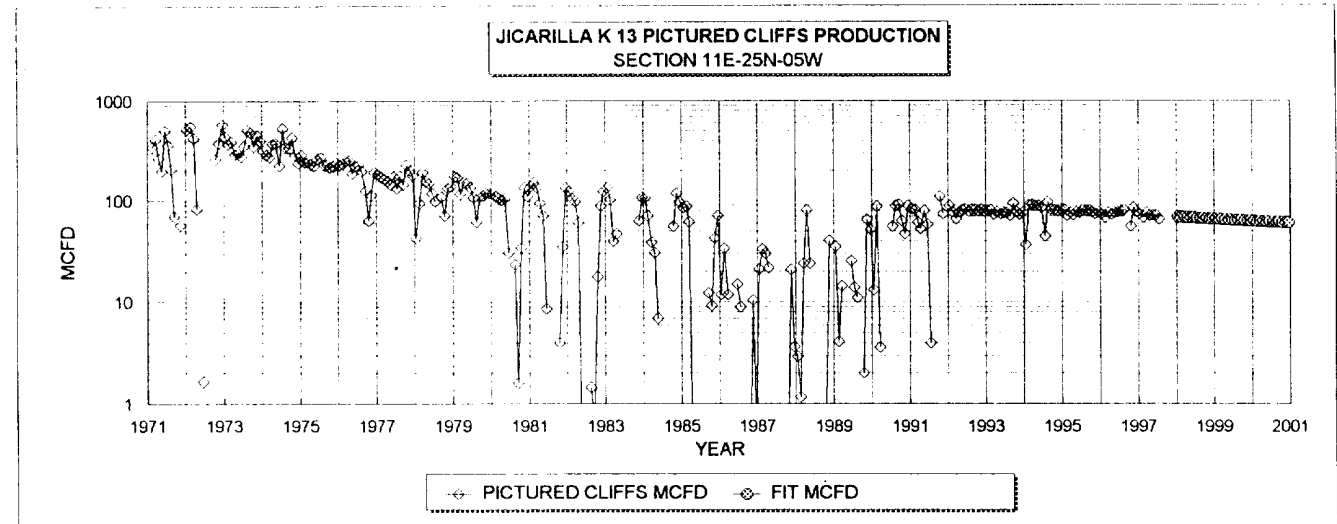
16. ATTACHMENTS

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- * Any additional statements, data, or documents required to support commingling.

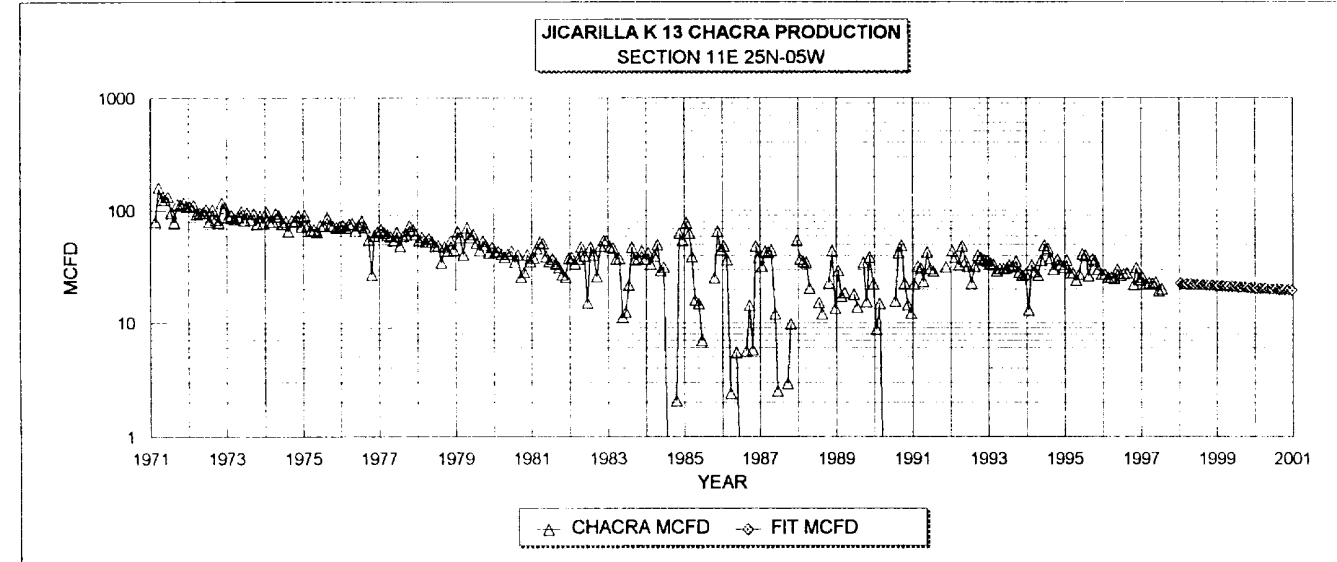
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Regulatory Agent DATE February 16, 1998

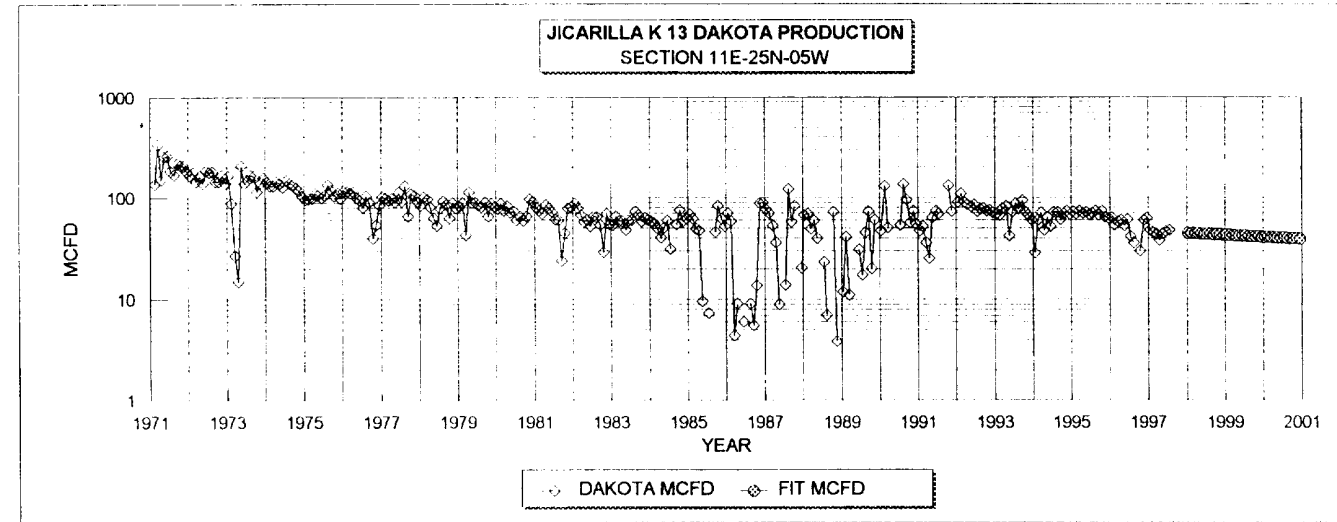
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798



PICTURED CLIFFS HISTORICAL DATA: 1ST PROD: 02/71		PIC. CLIFFS PROJECTED DATA	
OIL CUM:	0.00 MBO	7/1/98 QI:	67 MCFD
GAS CUM:	1045.2 MMCF	DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0000 BBL/MCF		



CHACRA HISTORICAL DATA: 1ST PROD: 02/71		CHACRA PROJECTED DATA	
OIL CUM:	0.0 MBO	7/1/98 QI:	22 MCFD
GAS CUM:	428.7 MMCF	DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0001 BBL/MCF		



DAKOTA HISTORICAL DATA		1ST PROD: 02/71		DAKOTA PROJECTED DATA	
OIL CUM:	17.6 MBO			7/1/98 QI:	44 MCFD
GAS CUM:	742.9 MMCF			DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0237 BBL/MCF				
FIXED COMMINGLE ALLOCATION FACTORS:					
	GAS	OIL	GAS ALLOCATION BASED ON PROJECTED 1998 RATES		
PIC. CLIFFS	51%	0%	OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS		
CHACRA	17%	0%	NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA		
DAKOTA	33%	100%			

JICARILLA K 13: PICTURED CLIFFS, CHACRA, AND DAKOTA FORECAST FOR SUBTRACTION COMMINGLE WITH MESAVERDE
11E-25N-05W

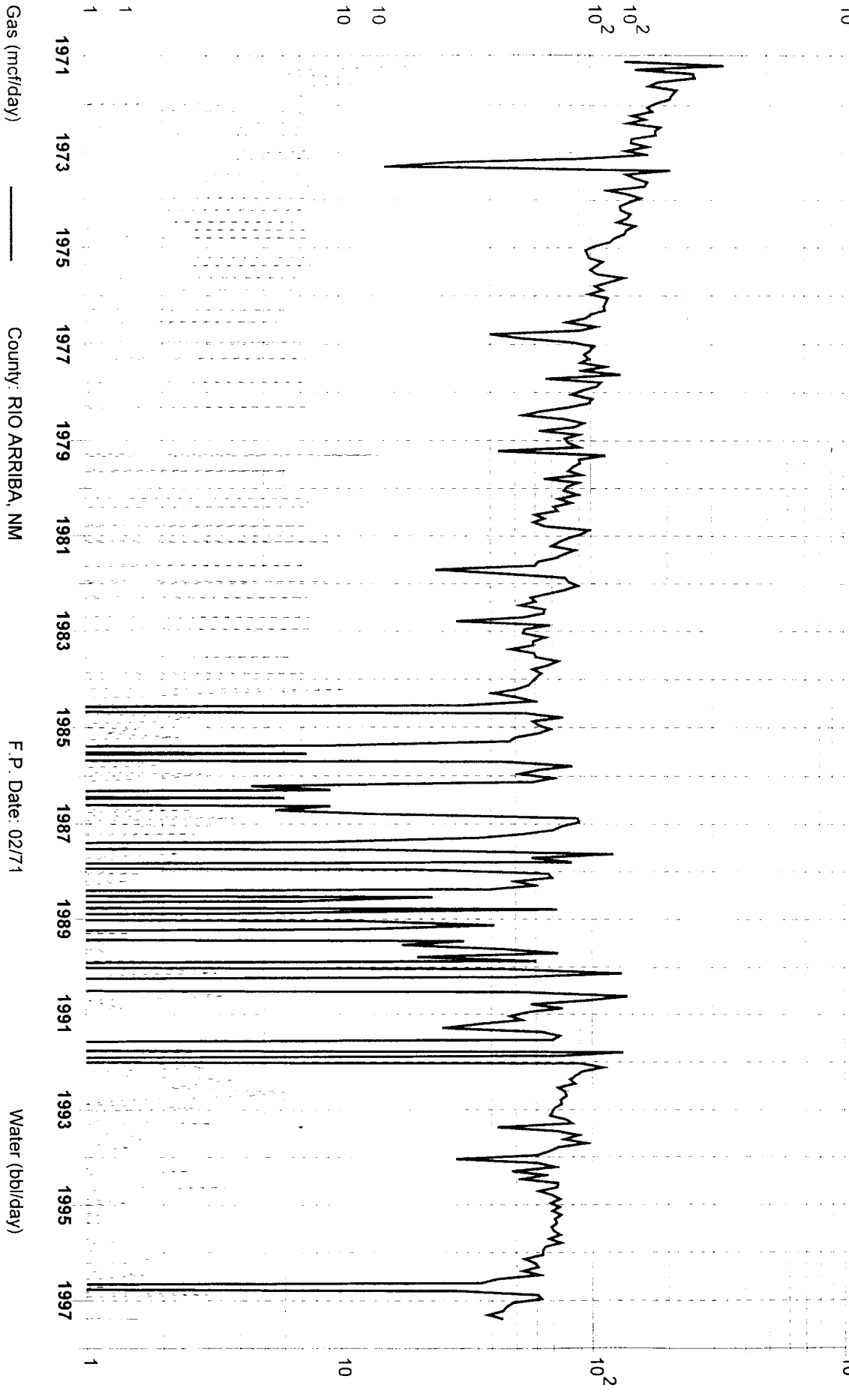
YEAR	PICT. CLIFFS	CHACRA	DAKOTA	TOTAL	PICT. CLIFFS	CHACRA	DAKOTA
	MCFD	MCFD	MCFD	MCFD	OIL; BOPD	OIL; BOPD	OIL; BOPD
(7-12/98 AVG)							
1998	66	22	43	131	0.0	0.0	1.0
1999	65	21	42	128	0.0	0.0	1.0
2000	62	20	40	122	0.0	0.0	1.0
2001	59	19	38	117	0.0	0.0	0.9
2002	57	18	37	112	0.0	0.0	0.9
2003	54	18	35	107	0.0	0.0	0.8
2004	52	17	34	102	0.0	0.0	0.8
2005	50	16	32	98	0.0	0.0	0.8
2006	47	15	31	94	0.0	0.0	0.7
2007	45	15	30	90	0.0	0.0	0.7
2008	43	14	28	86	0.0	0.0	0.7
2009	42	14	27	82	0.0	0.0	0.6
2010	40	13	28	79	0.0	0.0	0.6
2011	38	12	25	75	0.0	0.0	0.6
2012	36	12	24	72	0.0	0.0	0.6
2013	35	11	23	69	0.0	0.0	0.5
2014	33	11	22	66	0.0	0.0	0.5
2015	32	10	21	63	0.0	0.0	0.5
2016	31	10	20	60	0.0	0.0	0.5
2017	29	10	19	58	0.0	0.0	0.5
2018	28	9	18	55	0.0	0.0	0.4
2019	27	9	17	53	0.0	0.0	0.4
2020	26	8	17	51	0.0	0.0	0.4
2021	25	8	16	49	0.0	0.0	0.4
2022	24	8	15	48	0.0	0.0	0.4
2023	22	7	15	44	0.0	0.0	0.3
2024	22	7	14	43	0.0	0.0	0.3
2025	21	7	13	41	0.0	0.0	0.3
2026	20	6	13	39	0.0	0.0	0.3
2027	19	6	12	37	0.0	0.0	0.3
2028	18	6	12	36	0.0	0.0	0.3
2029	17	6	11	34	0.0	0.0	0.3
2030	17	5	11	33	0.0	0.0	0.3
2031	16	5	10	31	0.0	0.0	0.2
2032	15	5	10	30	0.0	0.0	0.2
2033	14	5	9	28	0.0	0.0	0.2
2034	14	5	9	27	0.0	0.0	0.2
2035	13	4	9	26	0.0	0.0	0.2
2036	13	4	8	25	0.0	0.0	0.2
2037	12	4	8	24	0.0	0.0	0.2
2038	12	4	8	23	0.0	0.0	0.2
2039	11	4	7	22	0.0	0.0	0.2
2040	11	3	7	21	0.0	0.0	0.2
2041	10	3	7	20	0.0	0.0	0.2
2042	10	3	6	19	0.0	0.0	0.2
2043	9	3	6	18	0.0	0.0	0.1
2044	9	3	6	18	0.0	0.0	0.1
2045	9	3	6	17	0.0	0.0	0.1
2046	8	3	5	16	0.0	0.0	0.1
2047	8	3	5	16	0.0	0.0	0.1
2048	7	2	5	15	0.0	0.0	0.1
2049	7	2	5	14	0.0	0.0	0.1
2050	7	2	4	14	0.0	0.0	0.1

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251.039.25N05W11E00DK



Gas (mcf/day) —

County: RIO ARriba, NM

F.P. Date: 02/71

Water (bbl/day)

Field: BASIN (DAKOTA) DK

Oil Cum: 17.53 mbbl

Reservoir: DAKOTA

Gas Cum: 740.0 mmcf

Operator: CONOCO INC

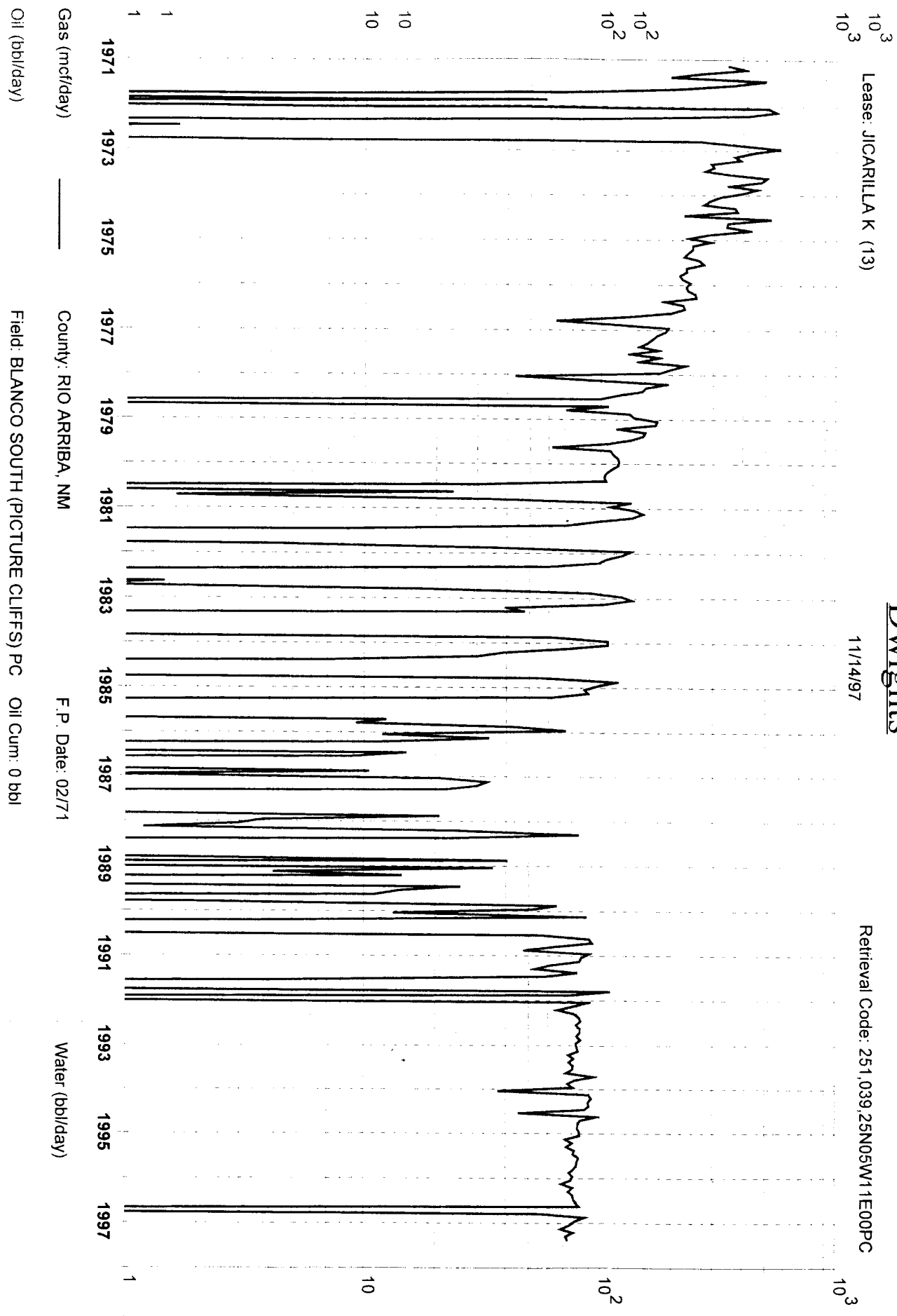
Location: 11E 25N 5W

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251,039,25N05W11E00PC



County: RIO ARriba, NM

F.P. Date: 02/71

Field: BLANCO SOUTH (PICTURE CLIFFS) PC Oil Cum: 0 bbl

Reservoir: PICTURE CLIFFS

Gas Cum: 1041 mmcf

Operator: CONOCO INC

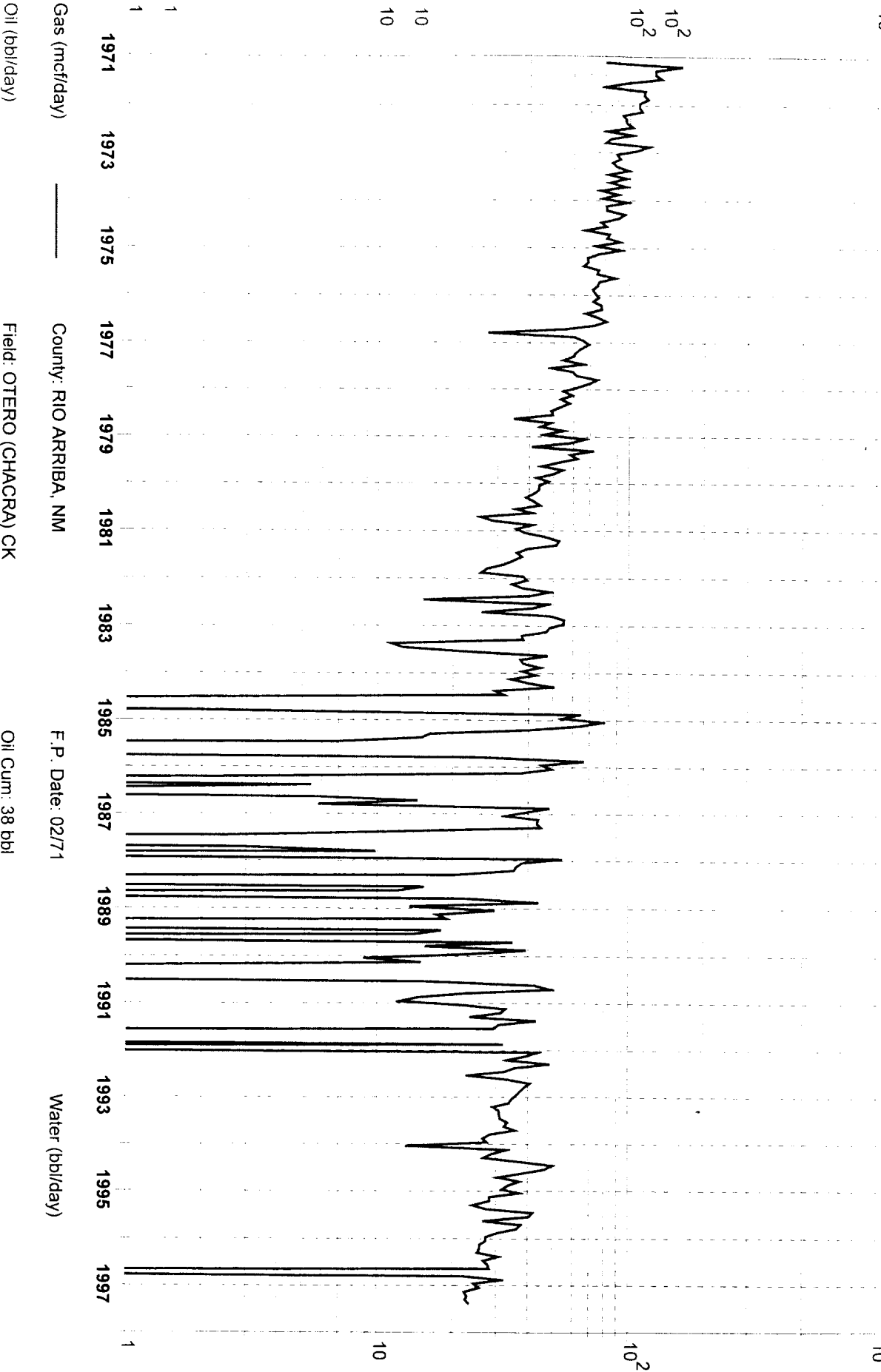
Location: 11E 25N 5W

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251,039,25N05W11E00CK



Gas (mcf/day)

County: RIO ARriba, NM

F.P. Date: 02/71

Water (bbl/day)

Oil (bbl/day)

Field: OTERO (CHACRA) CK

Oil Cum: 38 bbl

Reservoir: CHACRA

Gas Cum: 427.5 mmcf

Operator: CONOCO INC

Location: 11E 25N 5W

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1994
instructions on back

District II
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

District III
1000 Rio Brazos Rd. Aztec, NM 87410

PO Box 2088
Santa Fe, NM 87504-2088

State Lease - 4 Copies
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20292		2 Pool Code 72319	3 Pool Name Blanco Mesaverde
4 Property Code 18023	5 Property Name Jicarilla K		6 Well Number #13
7 OGRID No. 005073	8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500		9 Elevation 6684 GL

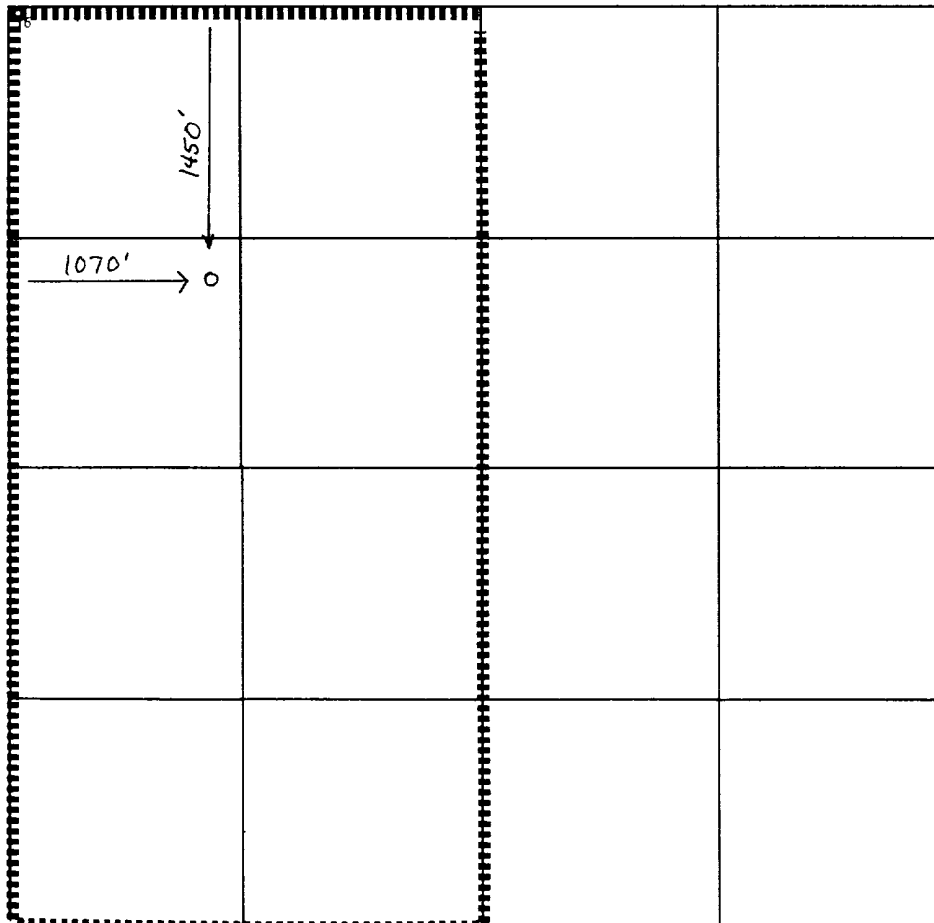
10 Surface Location

UL or lot no. E	Section 11	Township 25N	Range 5W	Lot Idn	Feet from the 1450	North/South line North	Feet from the 1070	East/West line West	County Rio Arriba
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11 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
12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code		15 Order No.					

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

Kay Maddox
Signature
Kay Maddox

Printed Name
Regulatory Agent

Title

Date

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

Signature and Seal of Professional Surveyor:

Certificate Number

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

SOUTHERN UNION PRODUCTION COMPANY JICARILLA "N" 13
E 11 25 NORTH 5 WEST RIO ARriba
1450 NORTH 1070 WEST
66-4.0 DAKOTA SOUTH BLANCO PICTURED CLIFFS NW/4 160 W/2 319.5

On the map above, show the subject well location and acreage dedication in the plot below

1. Is there more than one lease on the well? If so, list the well location and acreage for each lease, and the working interest and royalty.

2. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communication, unitization, force pooling, etc?

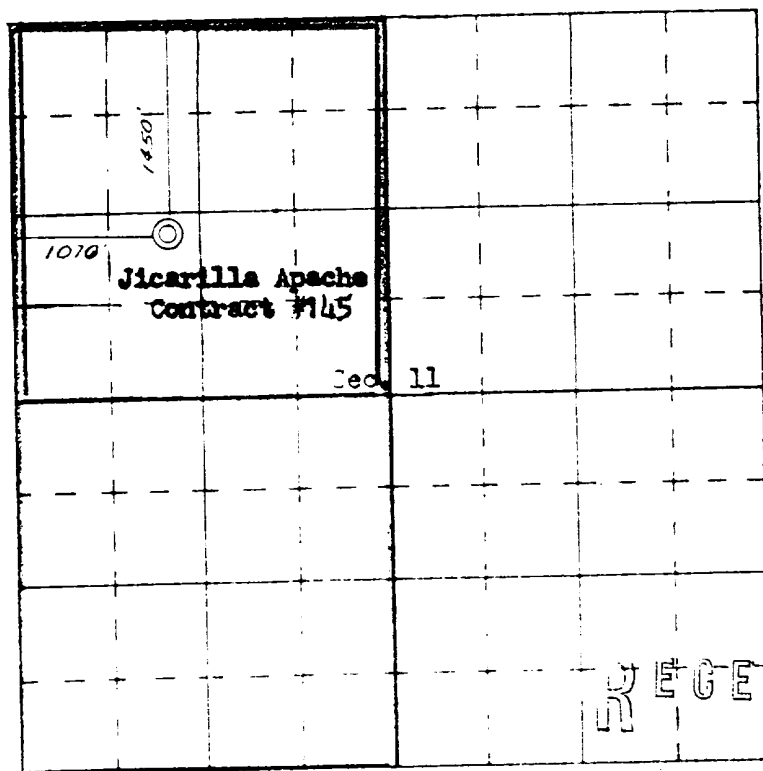
Yes No If answer is "yes," type of consolidation

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

No. How law will be applied to the well until all interests have been consolidated, (by communication, unitization, forced-pooling, or otherwise) until when standard unit, eliminating such interests, has been approved by the Commission.

Dedicated Dakota Acreage

Dedicated Pictured Cliffs Acreage



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N.M. U.S. GEOLOGICAL SURVEY, DURANGO, COLO.

CERTIFICATION

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

Dan Collier
Name

Dan Collier

Position
Office Manager

Company
Southern Union Production

Date
November 10, 1969

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.

5 November 1969

John A. [Signature]
[Signature]

JAMES A. [Signature]

1-63

Conoco, Inc.
Jicarilla K #13
Section 11, T-25-N, R-5-W, E
Rio Arriba County, New Mexico

Re: Application for Downhole Commingling

Offset Operators:

Amoco Production Co.
PO Box 800
Denver, Co 80201