

DATE IN 6/20/97	SUSPENSE 7/10/97	ENGINEER DC	LOGGED BY <i>W</i>	TYPE DHC
-----------------	------------------	-------------	--------------------	----------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

JUN 20 1997

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
 [B] ☒ Offset Operators, Leaseholders or Surface Owner
 [C] ☐ Application is One Which Requires Published Legal Notice
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
 [F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Jerry W. Hoover
Print or Type Name

Jerry W. Hoover
Signature

Sr. Conservation Coordinator 6-13-97
Title Date

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 16 D-12-T-25N-R5W Rio Arriba
Lease Well No Unit Ltr Sec Twp Rge County

OGRID NO. 005073 Property Code 18023 API NO. 30039-20428 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	Otero Chacra 82329	Blanco Mesa Verde 72319	Basin Dakota 71599
2. TOP and Bottom of Pay Section (Perforations)	4202' - 4230'	Proposed 5341' - 5701'	Current 7512' - 7710'
3. Type of production (Oil or Gas)	Gas	Gas	Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing	To Flow	Flowing
5. Bottom hole Pressure	a. (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	494 PSIA	1133 PSIA	829 PSIA
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	967 PSIA	1133 PSIA	2792 PSIA
6. Oil Gravity (°API) or Gas BTU Content	1258 - BTU	1265 - BTU	1280 - BTU
7. Producing or Shut-In?	Producing	To Be Completed	Producing
Production Marginal? (yes or no)	Yes	Expected To Be	Yes
• If Shut-In give date and oil/gas/water rates of last production	Date Split Chacra & Dakota Rates by percentages below after subtraction	Date Rates:	Date Split Chacra & Dakota Rates by percentages below after subtraction
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.			
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Incremental Production Rates by subtraction see attached sheet	Date Rates
8. Fixed Percentage Allocation Formula - % for each zone	Oil 0 % Gas 16 %	Oil % Gas %	Oil 100 % Gas 84 %

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 Jerry W. Hoover TITLE Sr. Conservation Coord. DATE 6/13/97

TYPE OR PRINT NAME Jerry W. Hoover TELEPHONE NO. (915) 686-6548

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACERAGE DEDICATION PLAT**

All distances must be from the outer boundaries of the Section

Operator SOUTHERN UNION PRODUCTION COMPANY			Lease JICARILLA "K"			Well No. 16		
Unit Letter D	Section 12	Township 25 NORTH	Range 5 WEST	County RIO ARriba				
Actual Footage Location of Well: 960 feet from the NORTH line and 790 feet from the WEST line								
Ground Level Elev. 6990.0	Producing Formation DAKOTA		Pool BASIN DAKOTA			Dedicated Acreage 1/2 - 320 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

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

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.

CERTIFICATION

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

**ORIGINAL SIGNED BY
B. R. VANDERSLICE**

Name
BILL VANDERSLICE

Position
AREA SUPERINTENDENT

Company
SOUTHERN UNION PRODUCTION

Date
SEPTEMBER 21, 1971

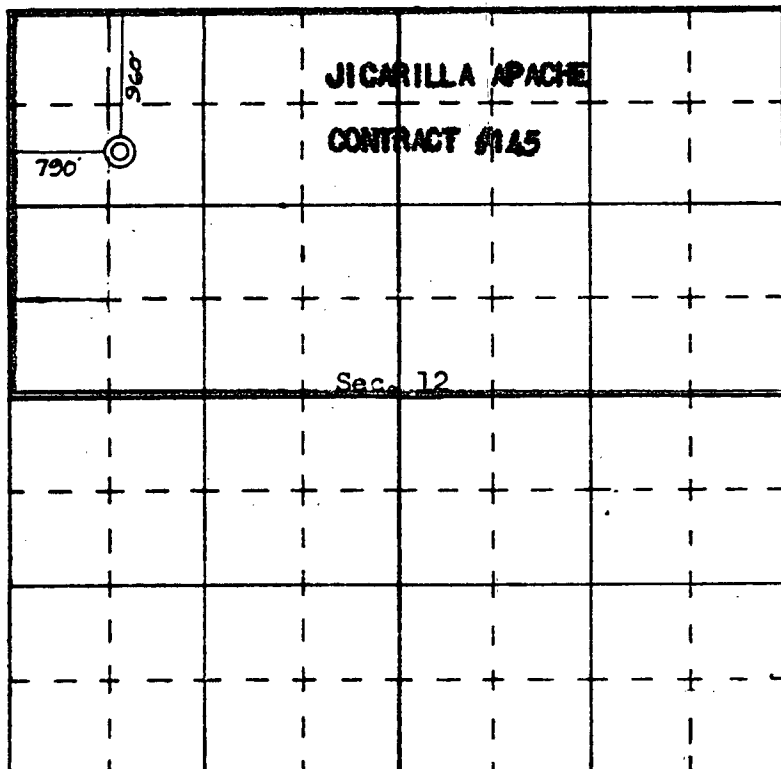
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

16 September, 1971
Date Surveyed

[Signature]
Registered Professional Engineer
and a Land Surveyor

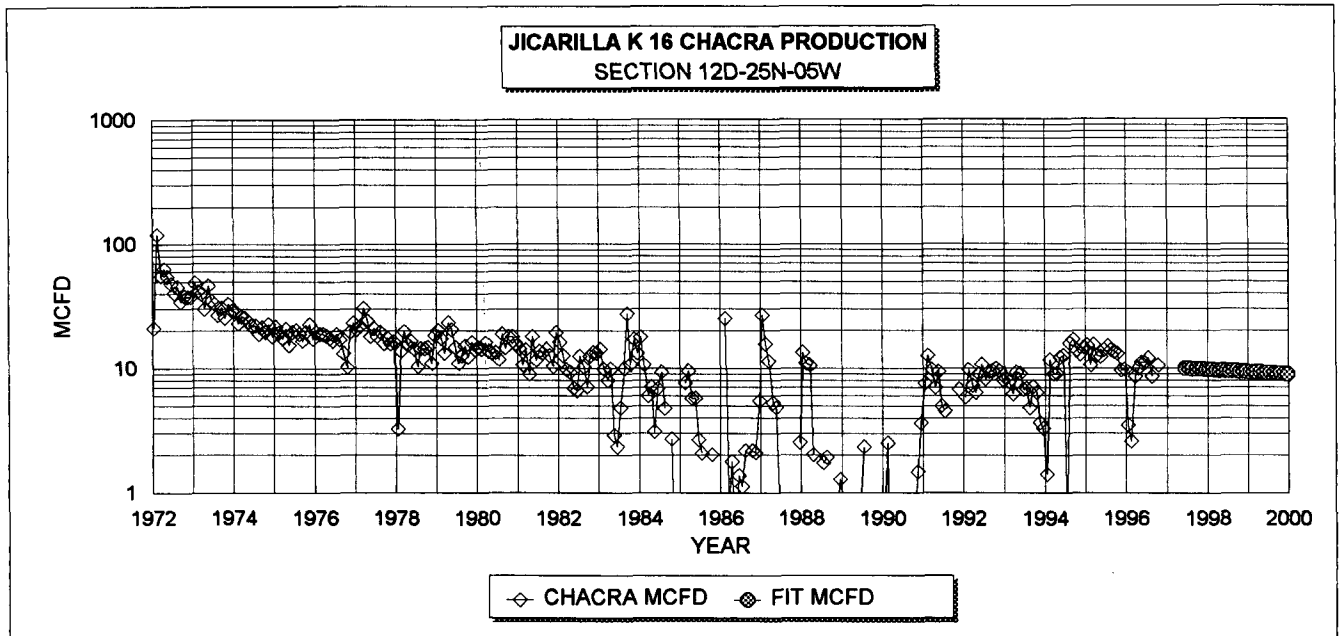
JAMES P. LEESE

1463
Certificate No.



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.



CHACRA HISTORICAL DATA: 1ST PROD: 01/72

OIL CUM: 0.01 MBO

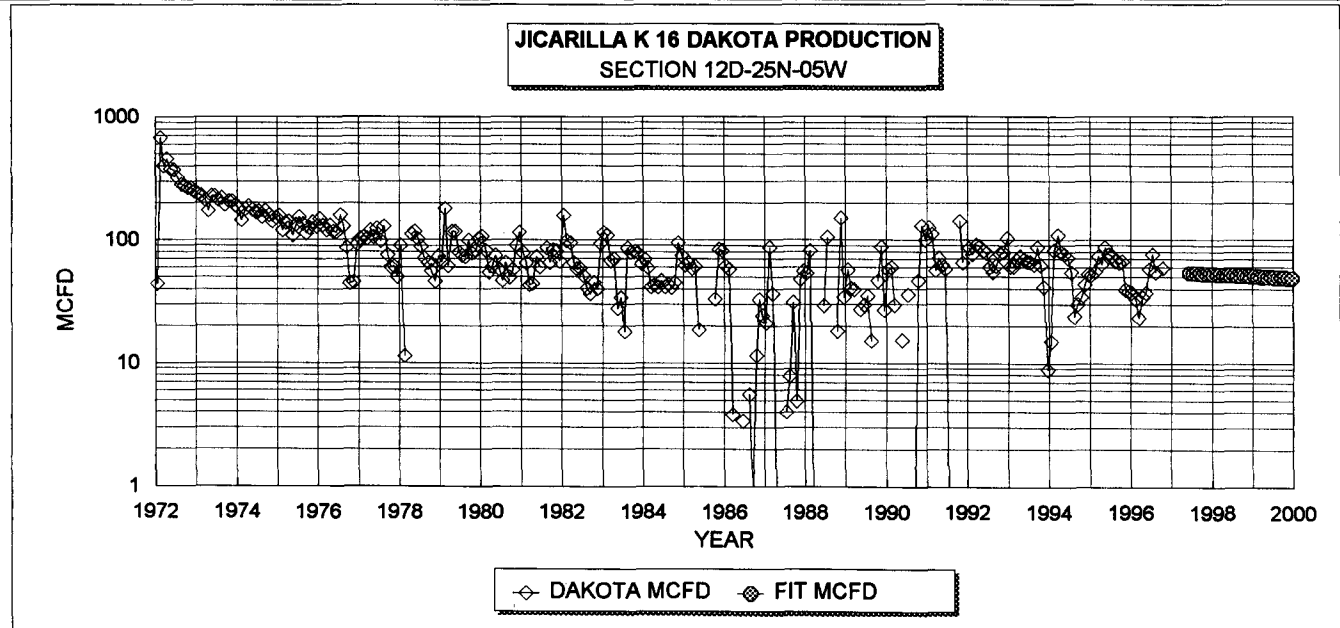
GAS CUM: 115.9 MMCF

OIL YIELD: 0.0001 BBL/MCF

CHACRA PROJECTED DATA

6/1/97 QI: 10 MCFD

DECLINE RATE: 4.0% (EXPONENTIAL)



DAKOTA HISTORICAL DATA 1ST PROD: 01/72

OIL CUM: 9.6 MBO

GAS CUM: 757.0 MMCF

OIL YIELD: 0.0126 BBL/MCF

DAKOTA PROJECTED DATA

6/1/97 QI: 54 MCFD

DECLINE RATE: 4.0% (EXPONENTIAL)

FIXED COMMINGLE ALLOCATION FACTORS:

	GAS	OIL
CHACRA	16%	0%
DAKOTA	84%	100%

GAS ALLOCATION BASED ON PROJECTED 1997 RATES

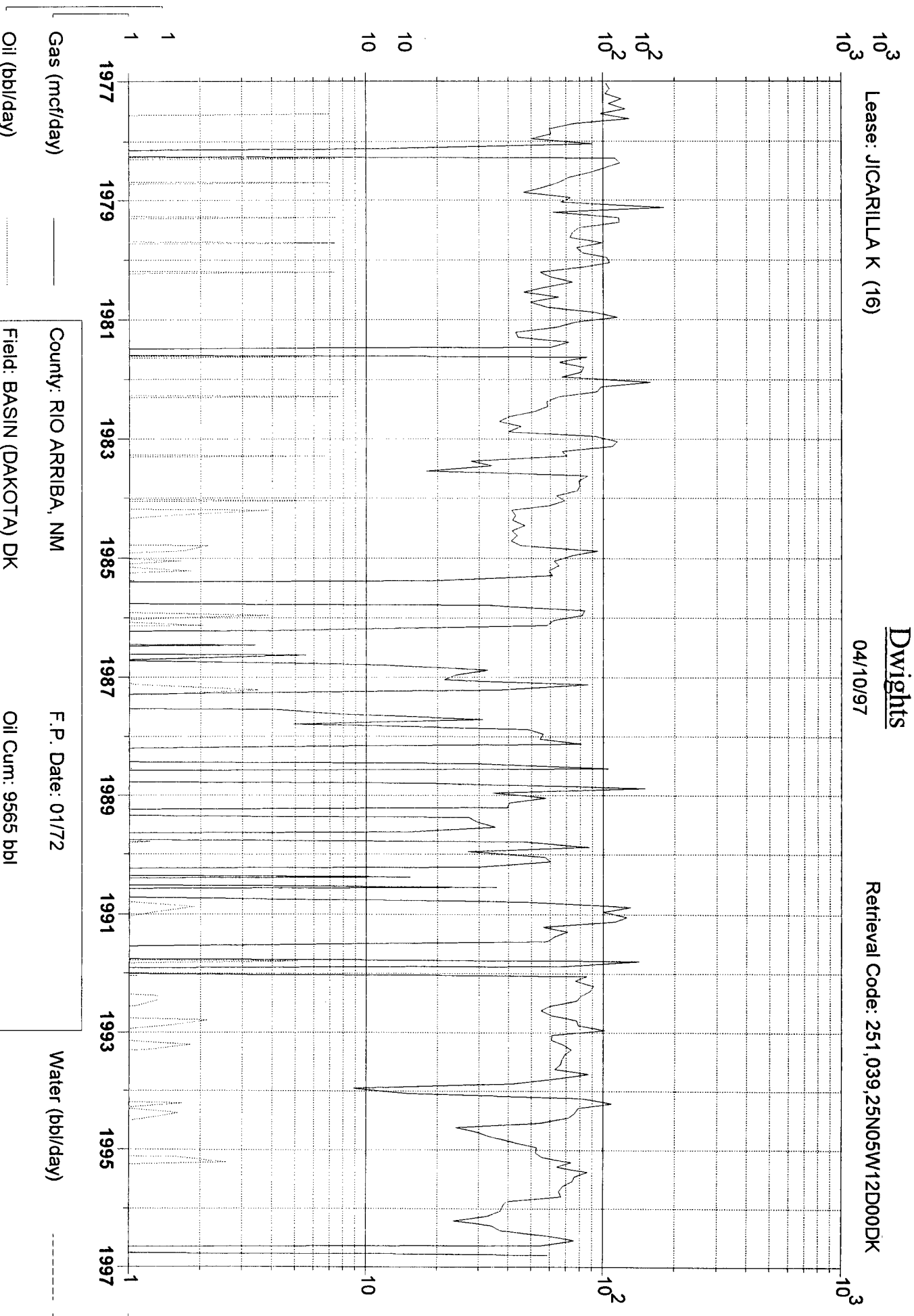
OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

Dwights
04/10/97

Retrieval Code: 251,039,25N05W12D00DK

Lease: JICARILLA K (16)



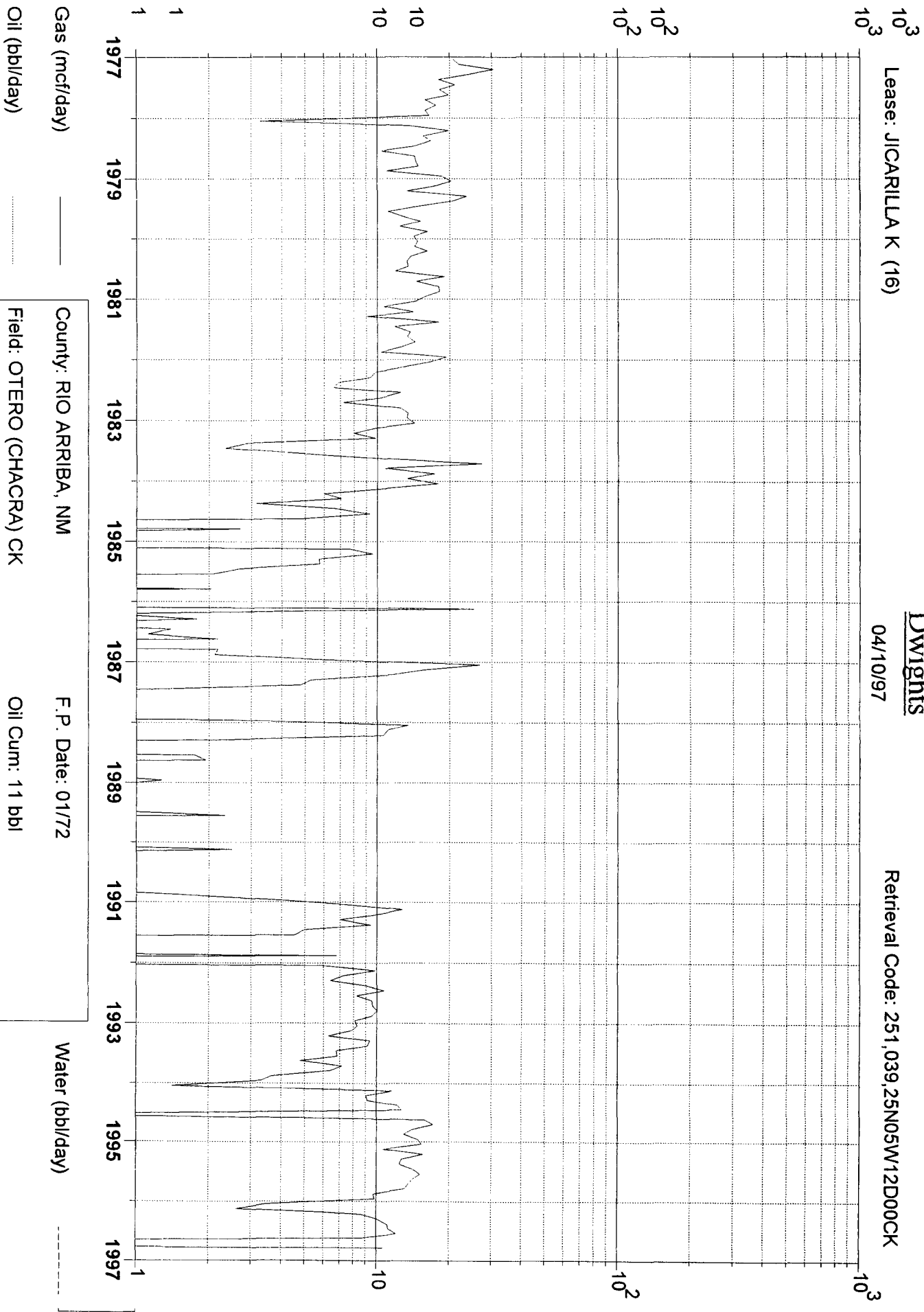
County: RIO ARRIBA, NM F.P. Date: 01/72
Field: BASIN (DAKOTA) DK Oil Cum: 9565 bbl
Reservoir: DAKOTA Gas Cum: 757.0 mmcf
Operator: CONOCO INC Location: 12D 25N 5W

Lease: JICARILLA K (16)

Dwights

04/10/97

Retrieval Code: 251,039,25N05W12D00CK



County: RIO ARriba, NM

F.P. Date: 01/72

Field: OTERO (CHACRA) CK

Oil Cum: 11 bbl

Reservoir: CHACRA

Gas Cum: 115.9 mmcf

Operator: CONOCO INC

Location: 12D 25N 5W

JICARILLA K 16: CHACRA AND DAKOTA FORECAST FOR SUBTRACTION COMMINGLE WITH MESAVERDE

12D-25N-05W

YEAR	CHACRA MCFD	DAKOTA MCFD	TOTAL MCFD	CHACRA OIL; BOPD	DAKOTA OIL; BOPD
(6-12/97 AVG)					
1997	10	53	63	0.0	0.7
1998	9.6	52	61	0.0	0.7
1999	9	50	59	0.0	0.6
2000	9	48	57	0.0	0.6
2001	8	46	54	0.0	0.6
2002	8	44	52	0.0	0.6
2003	8	42	50	0.0	0.5
2004	8	41	48	0.0	0.5
2005	7	39	46	0.0	0.5
2006	7	37	44	0.0	0.5
2007	7	36	43	0.0	0.5
2008	6	34	41	0.0	0.4
2009	6	33	39	0.0	0.4
2010	6	32	38	0.0	0.4
2011	6	30	36	0.0	0.4
2012	5	29	35	0.0	0.4
2013	5	28	33	0.0	0.4
2014	5	27	32	0.0	0.3
2015	5	26	31	0.0	0.3
2016	5	25	29	0.0	0.3
2017	4	24	28	0.0	0.3
2018	4	23	27	0.0	0.3
2019	4	22	26	0.0	0.3
2020	4	21	25	0.0	0.3
2021	4	20	24	0.0	0.3
2022	4	19	23	0.0	0.2
2023	3	19	22	0.0	0.2
2024	3	18	21	0.0	0.2
2025	3	17	20	0.0	0.2
2026	3	17	20	0.0	0.2
2027	3	16	19	0.0	0.2
2028	3	15	18	0.0	0.2
2029	3	15	17	0.0	0.2
2030	3	14	17	0.0	0.2

JICARILLA K #16

OFFSET OPERATORS

<p>CONOCO, INC. MERIT ENERGY CORP.</p> <p>2</p>	<p>CONOCO, INC.</p> <p>1</p>	<p>DURLINGTON RESOURCES EL PASO EXPL. CO.</p> <p>6</p>
<p>CONOCO, INC. MERIT ENERGY CORP.</p> <p>11</p>	<p>JIC K 16 CONOCO, INC.</p> <p>12</p>	<p>DURLINGTON RESOURCES EL PASO EXPL. CO.</p> <p>7</p>
<p>AMOCO PROD.</p> <p>14</p>	<p>AMOCO PROD.</p> <p>13</p>	<p>CONOCO, INC.</p> <p>18</p>

Township 25N --- Range 5W

Conoco, Inc.
Form C-107-A, Application for Downhole Commingling
Filing date: June 13, 1997

Offset Operators for Wells as listed below:

Jicarilla K, Well #11
Marathon Oil Co.
Burlington Resources
Amoco Production Co.

Jicarilla K, Well #17
Burlinton Resources
Amoco Production

Jicarilla K, Well #16
Burlington Resources
Amoco Production

Newsom, Well #17E
Amoco Production
~~Snyder Oil Co.~~
Robert R. Click

Jicarilla K, Well #15E
Burlington Resources

Jicarilla E, Well #10
Burlington Resources

Jicarilla E, Well #12
Burlington Resources

Federal, Well #13E
Burlington Resources
Caulkins Oil Co.

AXI Apache J, Well #18A
Amoco Production
Elm Ridge Resources

Federal, Well #11E
Caulkins Oil Co.
Amoco Production
Burlington Resources

Reames COM, Well #2
Caulkins Oil Co.
Burlington Resources

Conoco, Inc.
Form C-107-A, Application for Downhole Commingling
Filing Date: June 13, 1997
Address List for Offset Operators

RE: Jicarilla K, Well #11, Jacarilla K, Well #17, Jicarilla K, Well #16, Newsom, Well #17E, Jicarilla K, Well #15E, Jicarilla E, Well #10, Jicarilla E, Well #12, Federal, Well 313E, AXI Apache J, Well #18A, Federal, Well #11E, Reames COM, Well #2

Marathon Oil Co., Box 552, Midland, Texas 79702

Burlington Resources, c/o Meridian Oil, Inc., Box 51810, Midland, Texas 79710-1810

Amoco Production Co., Exploration & Production Sector, Box 4891, Houston, Texas 77210

Caulkins Oil Co., Box 340, Bloomfield, NM 87413

Elm Ridge Resources, Box 3946, Farmington, NM 87499

Snyder Oil Co., no longer an operator in the New Mexico Aztec District as per District Office.

Robert R. Click, no longer an operator in the New Mexico Aztec District as per District Office.

P 497 368 595

US Postal Service
Receipt for Certified MailAmoco Production Co.
Expl. & Prod. Sector
Box 4891
Houston, Texas 77210

Postage	\$ 1.93
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 4.38

Postmark or Date

6-18-97

PS Form 3800, April 1995

P 497 368 594

US Postal Service
Receipt for Certified MailBurlington Resources
c/o Meridian Oil, Inc.
Box 51810
Midland, Texas 79710-1810

Postage	\$ 2.90
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 5.35

Postmark or Date

6-18-97

PS Form 3800, April 1995

P 497 368 593

US Postal Service
Receipt for Certified MailMarathon Oil Co.
Box 552
Midland, Texas 79702

Postage	\$.78
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 3.23

Postmark or Date

6-18-97

PS Form 3800, April 1995

P 497 368 597

US Postal Service
Receipt for Certified MailElm Ridge Resources
Box 3946
Farmington, NM 87499

Postage	\$.78
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 3.23

Postmark or Date

6-18-97

PS Form 3800, April 1995

P 497 368 596

US Postal Service
Receipt for Certified MailCaulkins Oil Co.
Box 340
Bloomfield, NM 87413

Postage	\$ 1.24
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ 3.69

Postmark or Date

6-18-97

PS Form 3800, April 1995