

| | | | | |
|-----------------|------------------|-------------|--------------|----------|
| DATE IN 6/27/97 | SUSPENSE 7/17/97 | ENGINEER DC | LOGGED BY KW | TYPE DHC |
|-----------------|------------------|-------------|--------------|----------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

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

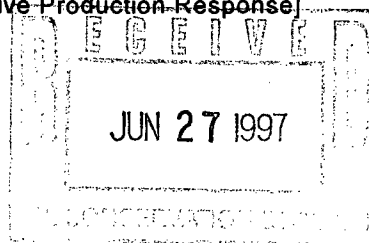
Check One Only for [B] and [C]

[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
 Title

6/19/97
 Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

CONOCO INC.

3. Address and Telephone No.

10 DESTA DR. STE. 100W, MIDLAND, TX. 79705-4500 (915) 686-5424

4. Location of Well (Footage, Sec., T. R. M. or Survey Description)

1835' FSL & 930' FEL
Sec. 1, T-25N, R-5W

5. Lease Designation and Serial No.

CONT. 145

6. If Indian, Allottee or Tribe Name

N.M.

Jicarilla

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Jicarilla K No. 15

9. API Well No.

30-039-20393

10. Field and Pool, or Exploratory Area

PC/MV/Dakota

11. County or Parish, State

Rio Arriba, NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Repon
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Downhole Commingle

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracruning
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

Note: Repon results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to downhole commingle this well in the Pictured Cliffs, Mesaverde, and Dakota formations according to the allocation formula described in the enclosed state C-107-A form and its attachments.

RECEIVED
JUL - 2 1997

OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed

Jerry W. Hoover

Sr. Conservation Coordinator

Date

6/25/97

(This space for Federal or State office use)

Approved by

Title

Chief, Lands and Mineral Resources

Date

JUL 1 1997

Conditions of approval if any:

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.

*See Instruction on Reverse Side

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 15 I-1-T25N-R5W 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. 30-039-20393 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 | So. Blanco Pictured Cliffs 72439 | Blanco Mesaverde 72319 | Basin Dakota 71599 |
| 2. TOP and Bottom of Pay Section (Perforations) | 3196'-3206' | 5290'-5549' | 7394'-7584' |
| 3. Type of production (Oil or Gas) | Gas | Gas | Gas |
| 4. Method of Production (Flowing or Artificial Lift) | Flowing | Flowing | Flowing |
| 5. Bottom hole Pressure | a (Current) | a. | a. |
| Oil Zones - Artificial Lift: Estimated Current | 273 psia | 754 psia | 531 psia |
| Gas & Oil - Flowing: Measured Current | b (Original) | b. | b. |
| All Gas Zones: Estimated Or Measured Original | 1087 psia | 1093 psia | 2784 psia |
| 6. Oil Gravity (*API) or Gas BTU Content | 1262 BTU | 1250 BTU | 1280 BTU |
| 7. Producing or Shut-In? | Producing | To be Completed | Producing |
| 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: Incremental Production by Subtraction --- Use attached Table | Date Rates |
| 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 Mid-Year Average Producing Rates -- See attached Table | Date Rates | Date Rates Mid-Year Average Producing Rates -- 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.

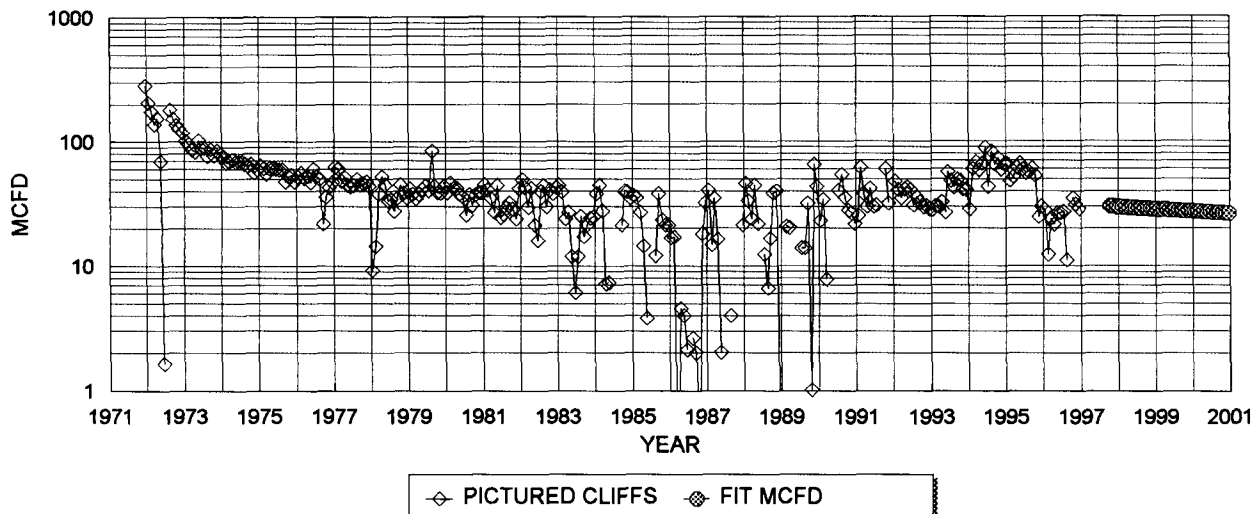
SIGNATURE Jerry W. Hoover TITLE Sr. Conservation Coord. DATE

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

JICARILLA K 15 DAKOTA/PICTURED CLIFFS COMMINGLED PRODUCTION FOR SUBTRACTION METHOD

| YEAR | PC MID-YEAR MCFD | DAKOTA MID-YEAR MCFD | DAKOTA MID-YEAR BOPD | TOTAL MID-YEAR AVG. MCFD | TOTAL MID-YEAR AVG. BOPD |
|------|------------------------|----------------------------|----------------------------|--------------------------------|--------------------------------|
| 1997 | 30 | 59 | 0.6 | 89 | 0.6 |
| 1998 | 29 | 58 | 0.6 | 87 | 0.6 |
| 1999 | 28 | 56 | 0.6 | 84 | 0.6 |
| 2000 | 27 | 53 | 0.6 | 80 | 0.6 |
| 2001 | 26 | 51 | 0.6 | 77 | 0.6 |
| 2002 | 25 | 49 | 0.5 | 74 | 0.5 |
| 2003 | 24 | 47 | 0.5 | 71 | 0.5 |
| 2004 | 23 | 45 | 0.5 | 68 | 0.5 |
| 2005 | 22 | 44 | 0.5 | 66 | 0.5 |
| 2006 | 21 | 42 | 0.5 | 63 | 0.5 |
| 2007 | 20 | 40 | 0.4 | 60 | 0.4 |
| 2008 | 19 | 39 | 0.4 | 58 | 0.4 |
| 2009 | 19 | 37 | 0.4 | 56 | 0.4 |
| 2010 | 18 | 36 | 0.4 | 53 | 0.4 |
| 2011 | 17 | 34 | 0.4 | 51 | 0.4 |
| 2012 | 16 | 33 | 0.4 | 49 | 0.4 |
| 2013 | 16 | 31 | 0.3 | 47 | 0.3 |
| 2014 | 15 | 30 | 0.3 | 45 | 0.3 |
| 2015 | 15 | 29 | 0.3 | 43 | 0.3 |
| 2016 | 14 | 28 | 0.3 | 42 | 0.3 |
| 2017 | 13 | 27 | 0.3 | 40 | 0.3 |
| 2018 | 13 | 26 | 0.3 | 38 | 0.3 |
| 2019 | 12 | 25 | 0.3 | 37 | 0.3 |
| 2020 | 12 | 24 | 0.3 | 36 | 0.3 |
| 2021 | 11 | 23 | 0.2 | 34 | 0.2 |
| 2022 | 11 | 22 | 0.2 | 33 | 0.2 |
| 2023 | 10 | 21 | 0.2 | 31 | 0.2 |
| 2024 | 10 | 20 | 0.2 | 30 | 0.2 |
| 2025 | 10 | 19 | 0.2 | 29 | 0.2 |
| 2026 | 9 | 18 | 0.2 | 28 | 0.2 |
| 2027 | 9 | 18 | 0.2 | 27 | 0.2 |
| 2028 | 9 | 17 | 0.2 | 26 | 0.2 |
| 2029 | 8 | 16 | 0.2 | 25 | 0.2 |
| 2030 | 8 | 16 | 0.2 | 24 | 0.2 |
| 2031 | 8 | 15 | 0.2 | 23 | 0.2 |

JICARILLA K 15 PICTURED CLIFFS PRODUCTION
SECTION 11-25N-05W



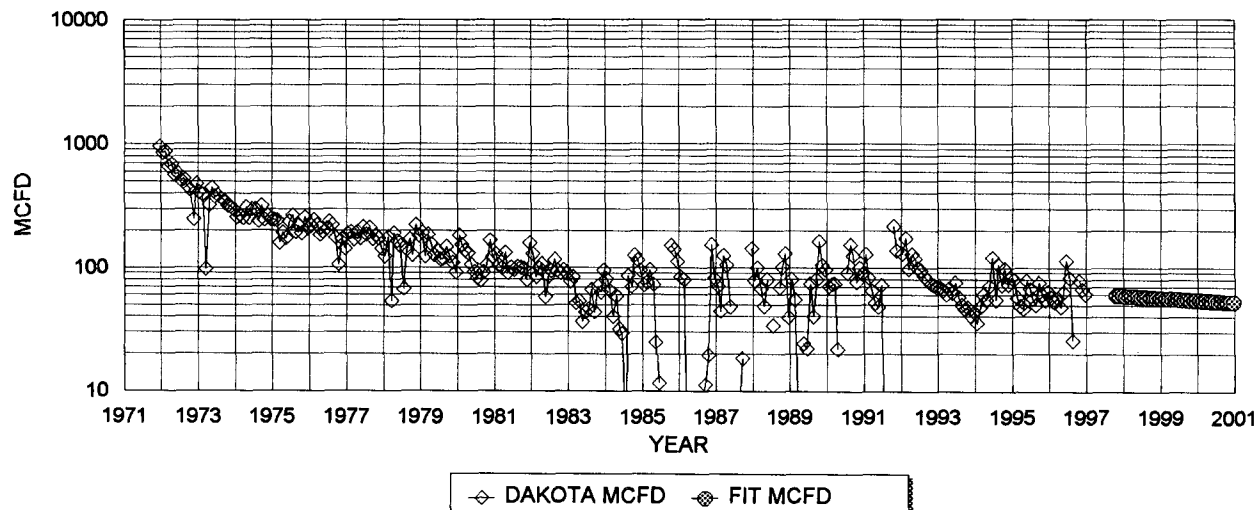
PICTURED CLIFFS HISTORICAL DATA 1ST PROD: 12/71

OIL CUM: 0.00 MBO
GAS CUM: 375.4 MMCF
OIL YIELD: 0.0000 BBL/MCF

PICTURED CLIFFS PROJECTED DATA

10/1/97 Qi: 30 MCFD
DECLINE RATE: 4.0% (EXPONENTIAL)

JICARILLA K 15 DAKOTA PRODUCTION
SECTION 11-25N-5W



DAKOTA HISTORICAL DATA 1ST PROD: 12/71

OIL CUM: 13.2 MBO
GAS CUM: 1220.7 MMCF
OIL YIELD: 0.0108 BBL/MCF

DAKOTA PROJECTED DATA

10/1/97 Qi: 60 MCFD
DECLINE RATE: 4.0% (EXPONENTIAL)

FIXED COMMINGLE ALLOCATION FACTORS:

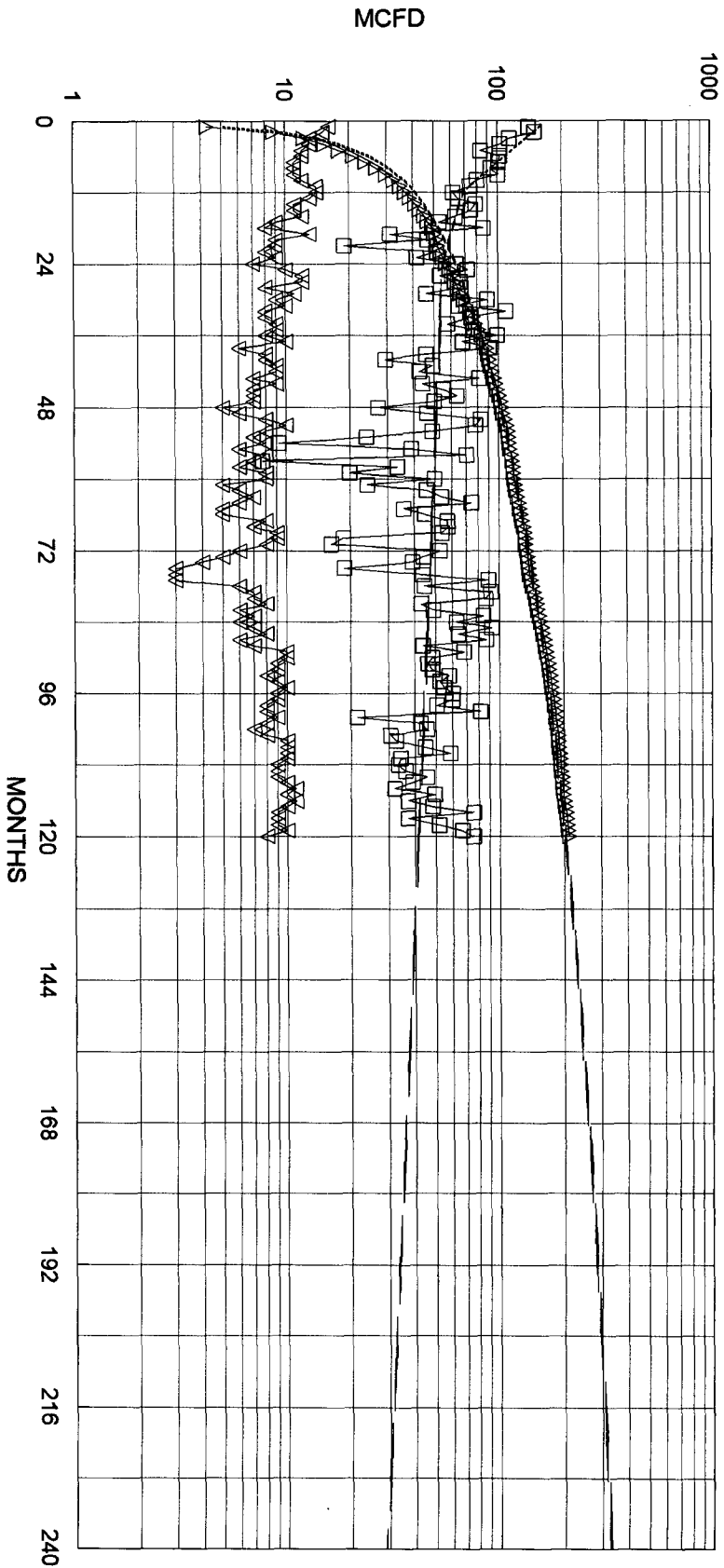
| | GAS | OIL |
|------------|-----|------|
| PIC CLIFFS | 33% | 0% |
| DAKOTA | 67% | 100% |

GAS ALLOCATION BASED ON PROJECTED 1997 RATES

OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

NORMALIZED MESAVERDE PRODUCTION
17 WELLS SINCE 1982; OFFSET TO JIC. K LEASE (25N-5W)



— FIT MCFD □ NORMALIZED MCFD △ NORM CUM MMCF
 △ WELLS ON PRODUCTION — FIT CUM MMCF

NORMALIZED AVG:

| | |
|--------------------|-------------------------------|
| 423 MMCF EUR | 172 MCFD IP |
| 331 MMCF IN 20 YRS | 60.0% DECLINE, 1ST 12 MONTHS |
| 20 MCFD E.L. | 20.0% DECLINE, NEXT 12 MONTHS |
| 0.05 BBL/MCF OIL | 3.5% FINAL DECLINE |

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

Form O-102
Supersedes C-128
Effective 1-1-55

All distances must be from the outer boundaries of the Section.

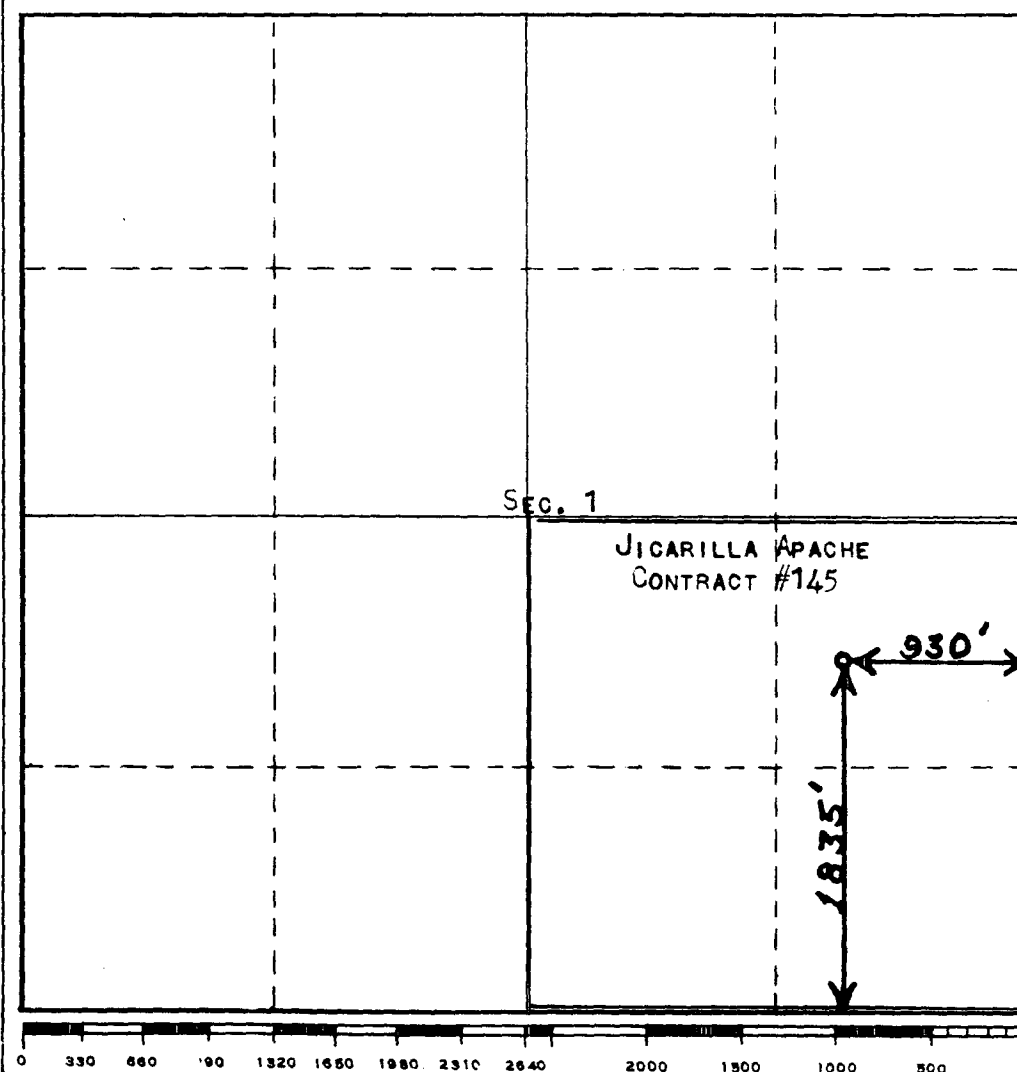
| | | | | | |
|---|---|-----------------------------|---|-----------------------------|--|
| Operator SOUTHERN UNION PRODUCTION COMPANY | | | Lease JICARILLA "K" | | Well No. 15 |
| Unit Letter I | Section 1 | Township 25 NORTH | Range 5 WEST | County RIO ARriba | |
| Actual Footage Location of Well: 1835 feet from the SOUTH line and 930 feet from the EAST line | | | | | |
| Ground Level Elev. 6804.0 | Producing Formation PICTURED CLIFFS | | Pool SOUTH BLANCO PICTURED CLIFFS | | Dedicated Acreage: 160 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 been 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 contained herein is true and complete to the best of my knowledge and belief.

Gilbert D. Noland, Jr.
Name

GILBERT D. NOLAND, JR.

Position

DRILLING SUPERINTENDENT

Company

SOUTHERN UNION PRODUCTION

Date

NOVEMBER 19, 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.

JUNE 18, 1971

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

JAMES P. LEESE

Certificate No.

1463

**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. **15**
 Unit/Center Section Township Range Course
1 **1** **25 NORTH** **5 WEST** **RIO ARriba**
 Actual Footage Location of Well:
1835 feet from the **SOUTH** line and **930** feet from the **EAST** line
 Ground Level Elev. **6804.0** Producing Formation **DAKOTA** **BASIN DAKOTA** Dedicated Acreage **E/2, 319.91** Acres

- Outline the acreage dedicated to the subject well by colored pencil or ballpoint pen on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communization, 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 communization, 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 contained herein is true and complete to the best of my knowledge and belief.

Original signed by
GILBERT D. NOLAND, JR.

Name
GILBERT D. NOLAND, JR.

Position
DRILLING SUPERINTENDENT

Company
SOUTHERN UNION PRODUCTION

Date
JUNE 23, 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.

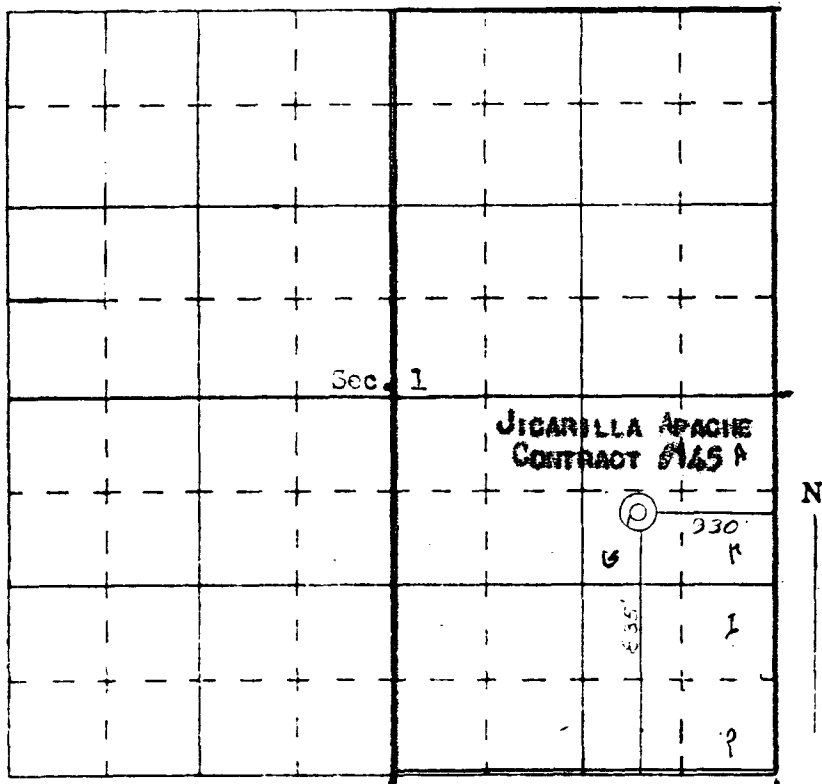
18 June, 1971

James A. Little
Registered Professional Engineer
and/or Land Surveyor

JAMES A. LITTLE

1453

Certificate No. _____



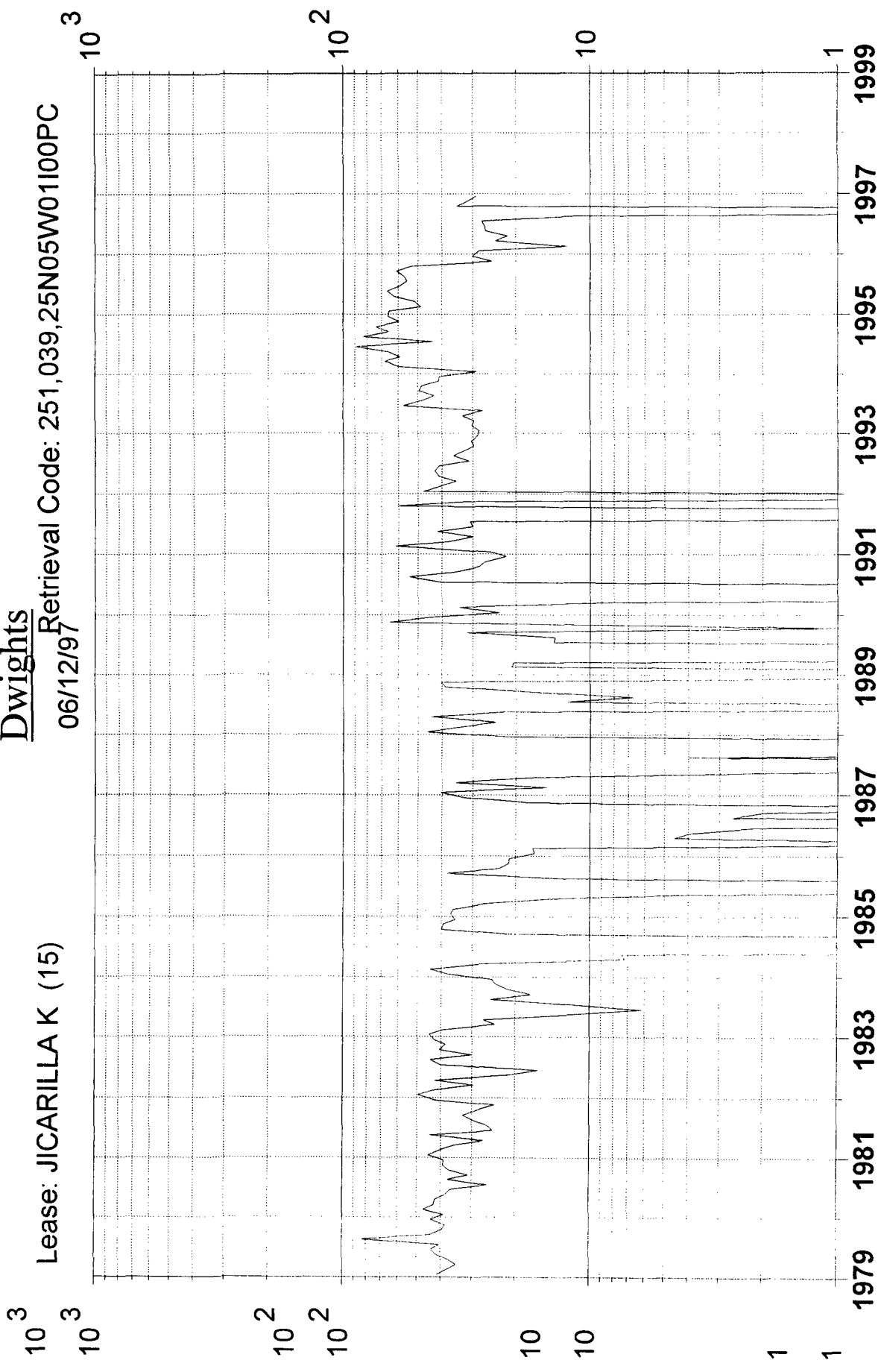
SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

Dwights

Lease: JICARILLA K (15)

Retrieval Code: 251,039,25N05W01100PC
06/12/97



Water (bbl/day)

Gas (mcf/day)

Oil (bbl/day)

County: RIO ARRIBA, NM F.P. Date: 12/71
Field: BLANCO SOUTH (PICTU) Oil Cum: 0 bbl
Reservoir: PICTURE CLIFFS Gas Cum: 375.4 mmcf
Operator: CONOCO INC Location: 11 25N 5W

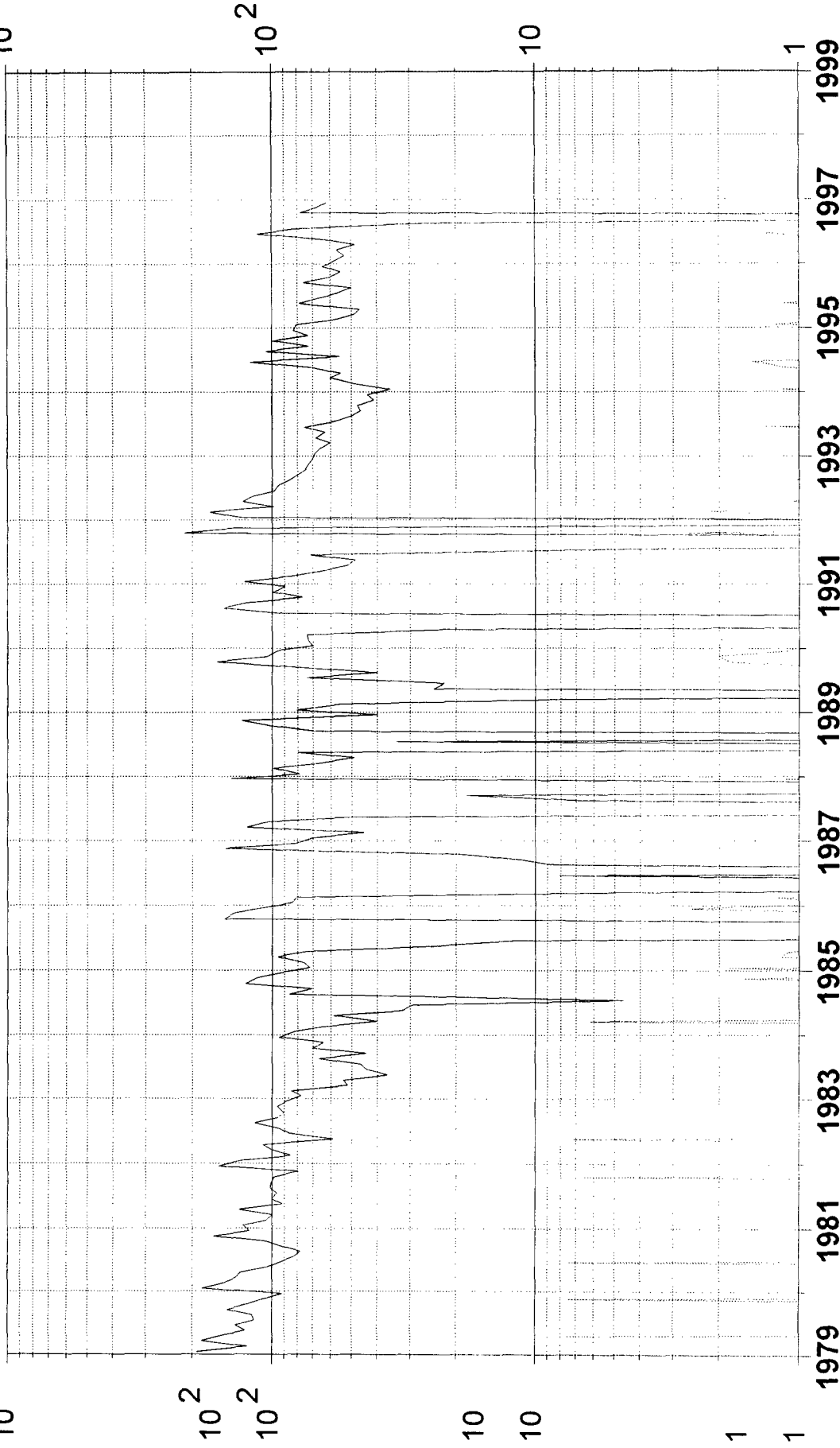
Lease: JICARILLA K (15)

Dwights

Retrieval Code: 251,039,25N05W01100DK

06/12/97

10³
10³
10³



Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

County: RIO ARriba, NM

F.P. Date: 12/71

Field: BASIN (DAKOTA) DK

Oil Cum: 13.23 mbbl

Reservoir: DAKOTA

Gas Cum: 1221 mmcf

Operator: CONOCO INC

Location: 11 25N 5W

JICARILLA K #15
OFFSET OPERATORS

| | | |
|--|--|--|
| <p>BURLINGTON RES.</p> <p align="center">35</p> | <p>BURLINGTON RES. UNION TEXAS PETR</p> <p align="center">36</p> | <p>BURLINGTON RES. CONOCO, INC. MCHUGH JEROME P</p> <p align="center">31</p> |
| | T26N R5W | T26N R4W |
| <p>CONOCO, INC.</p> <p align="center">2</p> | <p>CONOCO, INC.</p> <div data-bbox="797 868 1040 1342"> <p align="center">T25N R5W</p> <p align="center">JIC K #15</p> </div> <p align="center">1</p> | <p>BURLINGTON RES. EL PASO EXPL. CO.</p> <p align="center">T25N R4W</p> <p align="center">6</p> |
| <p>CONOCO, INC.</p> <p align="center">11</p> | <p>CONOCO, INC.</p> <p align="center">12</p> | <p>BURLINGTON RES. EL PASO EXPL. CO.</p> <p align="center">7</p> |

Township 25N --- Range 5W