

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

Amend DHC-DR

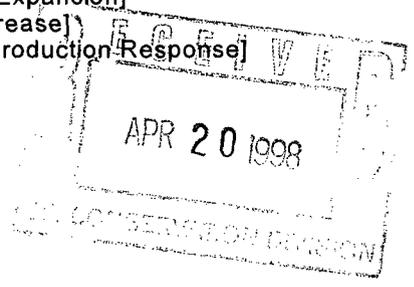
ADMINISTRATIVE APPLICATION COVERSHEET

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]

[Handwritten signature]



[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.

Kay Maddox *Kay Maddox* Regulatory Agent 4/16/98
 Print or Type Name Signature Title Date



Mid-Continent Region
Exploration/Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

April 16, 1998

Mr. David Catanach
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504-2088

Re: Application for Downhole Commingling
Jicarilla A #8
Section 23, T-26-N, R-4-W, E
Rio Arriba County, New Mexico

Dear Mr. Catanach,

In January of 1998, with approval to commingle the Gallup and Dakota (Order No. R-5857 see attached) and with approval to commingle the Mesaverde and Dakota (Order DHC 1095 see attached), Conoco worked on the subject well to commingle all zones in the wellbore. After completing the work, we were informed by the Aztec office that a new commingle order is required to specifically permit commingling the Mesaverde, Gallup and Dakota zones. Attached please find relevant data in support of this order and brief history of the well.

Please note that the work has been successfully completed and the well is now producing on wellhead compression at a rate of 367 MCFD, 0.5 BWPD, and 2 BOPD (4/8/98). The well is expected to stabilize at a rate of about 260 MCFD. At this rate, it is clear that production has been re-established from the low-pressured Gallup zone after being shut-in since 1979. Combined production from the Mesaverde and Dakota was 93 MCFD prior to workover.

We sincerely hope that this C-107A application and explanation will keep this well in compliance and will clear up any confusion.

-2-

The offset operators, Chateau and Burlington have been notified of this request.

Conoco, Inc respectfully requests either a new DHC order or an amended order to include the Gallup be granted on the Jicarilla A #8. If there are any additional questions concerning this application please call me at (915) 686-5798.

Sincerely yours,

A handwritten signature in black ink that reads "Kay Maddox". The signature is written in a cursive style with a large initial "K" and "M".

Kay Maddox
Regulatory Agent

Cc: Oil Conservation Division – Aztec
U.S. Bureau of Land Management - Farmington *Albq.*

Brief Well History

The subject well was originally dually completed in the Basin Dakota and Wildhorse Gallup pools with first production in November, 1967. In 1979, a previous operator, Southern Union, elected to commingle (Order No. R-5857 dated 11/28/78) the Gallup and Dakota (making a combined 500 MCFD in late 1977) and complete the Blanco Mesaverde zone. Mesaverde production was segregated from the commingled Gallup/Dakota production by means of a production packer set at 7091', above the Gallup perfs.

In hindsight, the 1979 commingle was ill-advised. The combination of low reservoir pressure in the Gallup, relatively high line pressure, small production tubing (1.9"), and a deep production packer made it nearly impossible to build enough pressure to overcome friction and lift fluid from the wellbore. As a result, the Gallup/Dakota did not produce until 1985, when Southern Union worked over the well to install two packers to straddle the Gallup perfs.

The 1985 workover temporarily isolated the Gallup behind a closed sliding sleeve opposite the Gallup perfs. Production was re-established from the Dakota at a rate of about 50 MCFD. A 1994 attempt to open the sliding sleeve over the Gallup was not believed successful.

In February 1995, another previous operator (Merit Energy) was granted approval to downhole commingle the Dakota and Mesaverde in the subject well (Administrative Order DHC-1095).

In January, 1998, Conoco commingled Mesaverde, Gallup, and Dakota zones and placed well on wellhead compression to enable production from the Gallup. Production prior to workover was 93 MCFD from the Mesaverde and Dakota only.

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

APPROVAL PROCESS:

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

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

Administrative Hearing

EXISTING WELLBORE

APPLICATION FOR DOWNHOLE COMMINGLING

YES NO

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

Lease Jicarilla A Well No #8 Unit Ltr Sec Twp Rge Section 23, T-26-N, R-4-W, E County Rio Arriba

OGRID NO. 005073 Property Code 18018 API NO. 30-039-20029 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 71599 | Wildhorse Gallup 87360 | Basin Dakota 71599 |
| 2. TOP and Bottom of Pay Section (Perforations) | 5621-5807' | 7214-7240' | 7700-7872' |
| 3. Type of production (Oil or Gas) | Gas | Gas | Gas |
| 4. Method of Production (Flowing or Artificial Lift) | Flowing | Flowing | Flowing |
| 5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original | a (Current) 590 psia | a. 324 psia | a. 806 psia |
| | b(Original) 1368 | b. 2135 | b. 2645 |
| 6. Oil Gravity (°API) or Gas BT Content | 1306 | 1413 | 1267 |
| 7. Producing or Shut-In? | Producing | Producing | Producing |
| Production Marginal? (yes or no) | Yes | Yes | Yes |
| • If Shut-In give date and oil/gas/water rates of last production 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 |
| | Date Rates Est 2/98 67 MCFD, 0 BWPD, .2 BOPD | Date Rates Est 2/98 128 MCFD, .2 BWPD, 1 BOPD | Date Rates Est 2/98 63 MCFD, .25 BWPD, 1 BOPD |
| 8. Fixed Percentage Allocation Formula -% for each zone | oil: 9 % Gas 26 % | oil: 46 % Gas 49 % | oil: 45 % Gas 25 % |

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) DHC-1095, R-5857

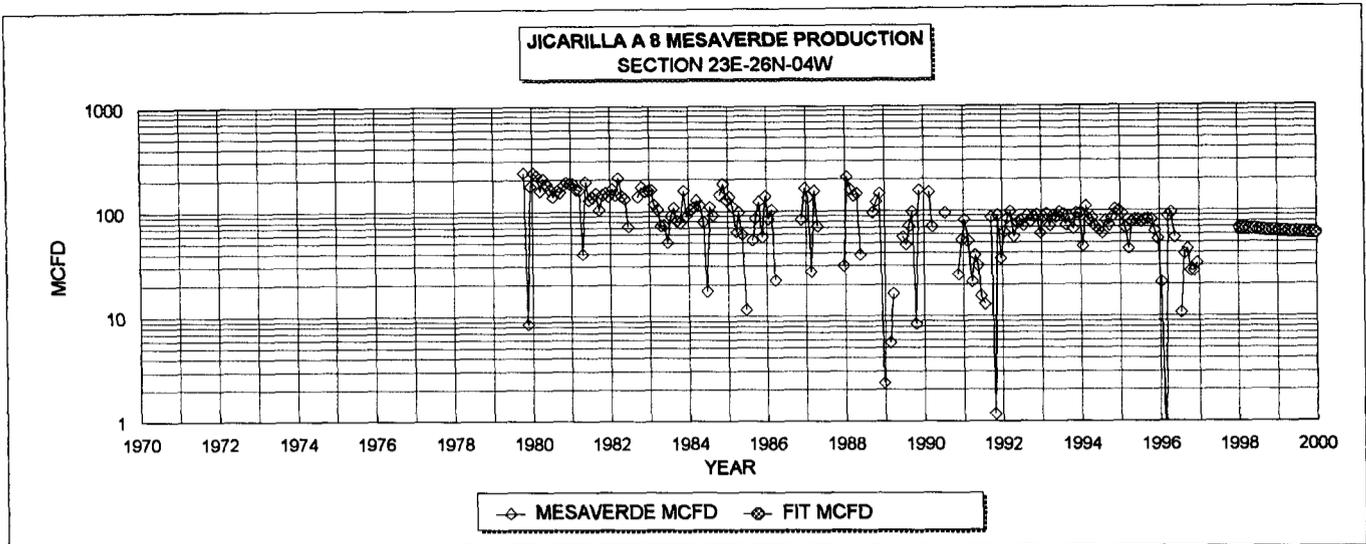
16. ATTACHMENTS

- * 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.

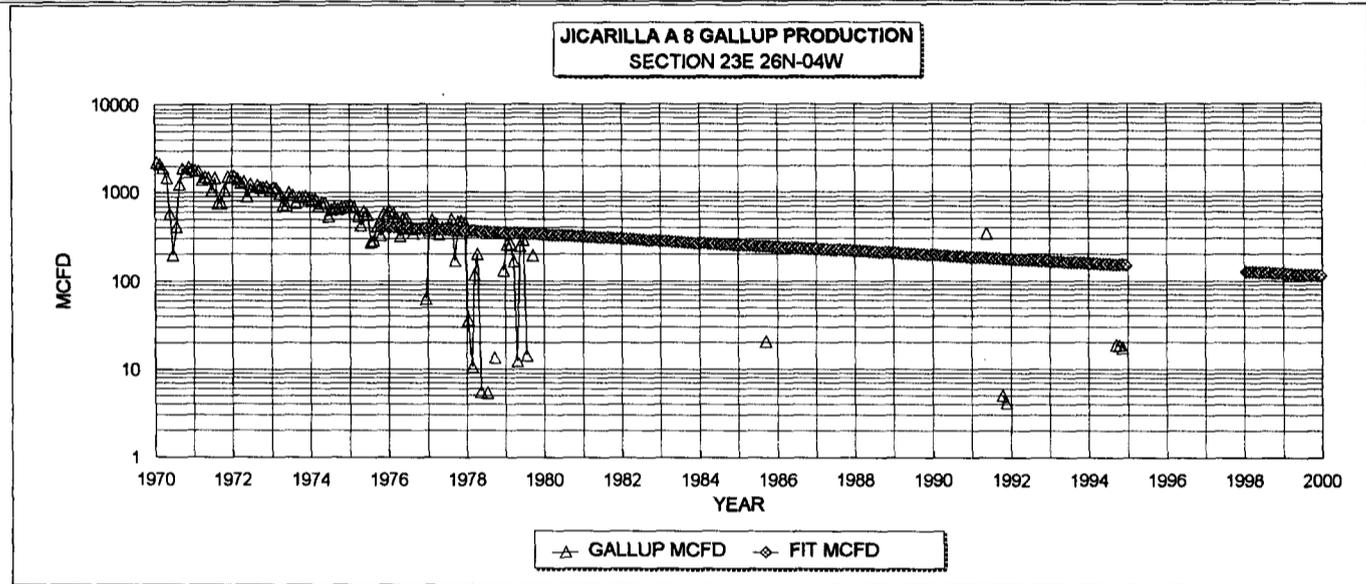
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE April 16, 1998

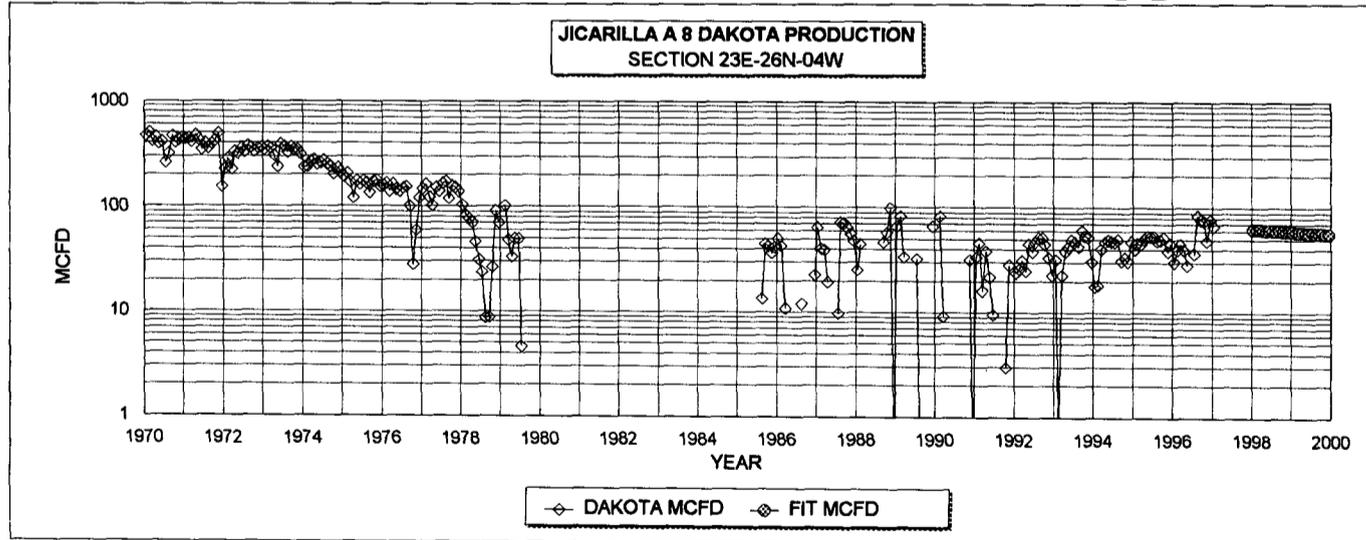
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798



| | | | |
|-----------------------------------|------------------------|---------------------------------|---------------------------|
| MESAVERDE HISTORICAL DATA: | | MESAVERDE PROJECTED DATA | |
| | 1ST PROD: 10/78 | | |
| OIL CUM: | 1.57 MBO | 2/1/98 QI: | 67 MCFD |
| GAS CUM: | 508.4 MMCF | DECLINE RATE: | 5.2% (EXPONENTIAL) |
| OIL YIELD: | 0.0031 BBL/MCF | | |



| | | | |
|--------------------------------|------------------------|------------------------------|---------------------------|
| GALLUP HISTORICAL DATA: | | GALLUP PROJECTED DATA | |
| | 1ST PROD: 11/67 | | |
| OIL CUM: | 28.6 MBO | 2/1/98 QI: | 126 MCFD |
| GAS CUM: | 3533.0 MMCF | DECLINE RATE: | 5.2% (EXPONENTIAL) |
| OIL YIELD: | 0.0081 BBL/MCF | | |



| | | | |
|-------------------------------|------------------------|------------------------------|---------------------------|
| DAKOTA HISTORICAL DATA | | DAKOTA PROJECTED DATA | |
| | 1ST PROD: 11/67 | | |
| OIL CUM: | 18.9 MBO | 2/1/98 QI: | 63 MCFD |
| GAS CUM: | 1280.0 MMCF | DECLINE RATE: | 5.2% (EXPONENTIAL) |
| OIL YIELD: | 0.0158 BBL/MCF | | |

| | | | |
|--|------------|------------|--|
| FIXED COMMINGLE ALLOCATION FACTORS: | | | |
| | GAS | OIL | |
| MESAVERDE | 26% | 9% | GAS ALLOCATION BASED ON PROJECTED 1998 RATES |
| GALLUP | 49% | 48% | OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS |
| DAKOTA | 25% | 45% | |

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

Dwights

Retrieval Code: 251,039,26N04W23E00DK

01/22/98

Lease: JICARILLA A (8)

10^3
 10^3

10^2
 10^2

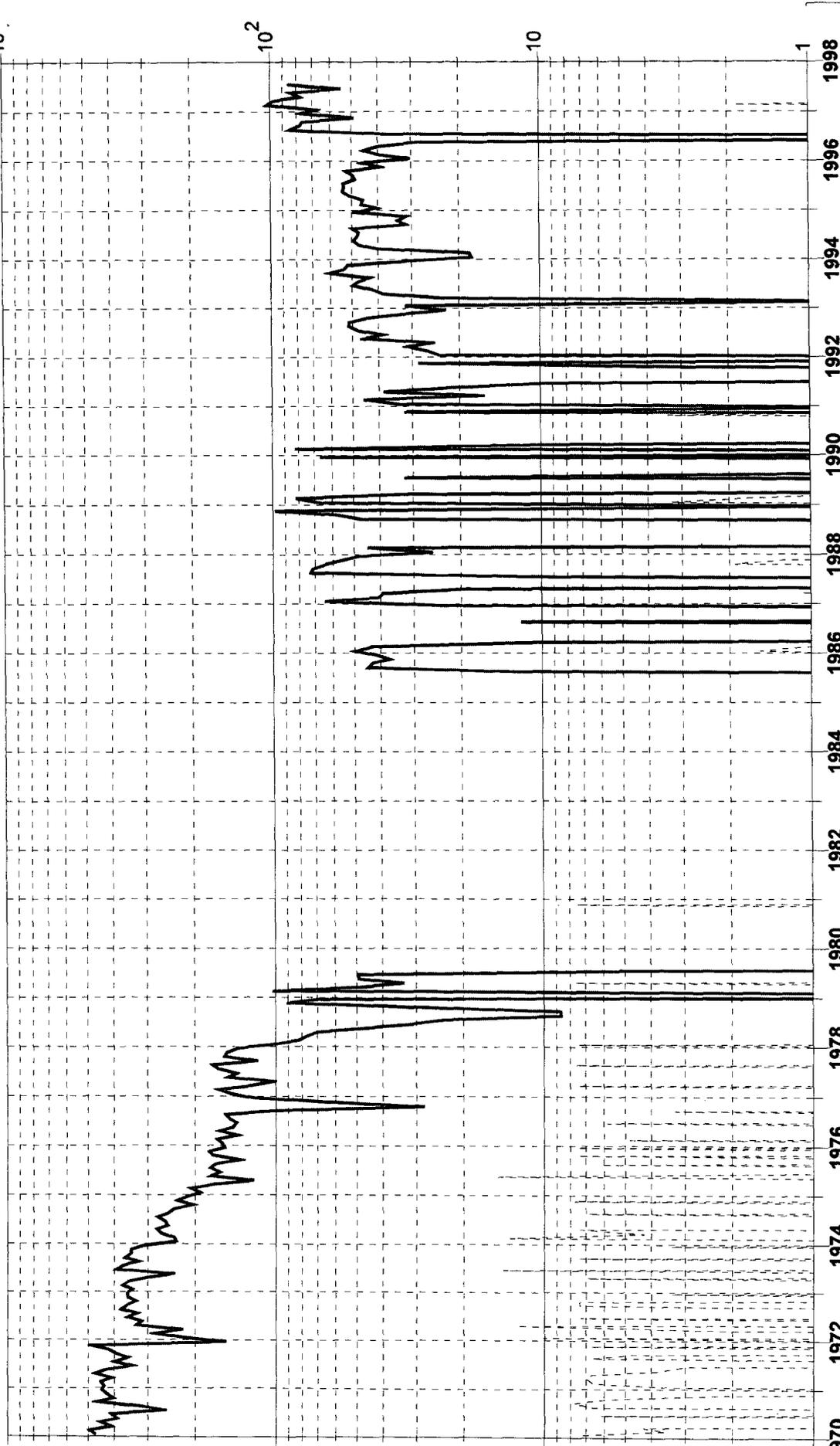
10
10

1
1

Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)



| | |
|--------------------------|----------------------|
| County: RIO ARRIBA, NM | F.P. Date: 11/67 |
| Field: BASIN (DAKOTA) DK | Oil Cum: 18.94 mbbbl |
| Reservoir: DAKOTA | Gas Cum: 1260 mmcf |
| Operator: CONOCO INC | Location: 23E 26N 4W |

Dwights

Retrieval Code: 251,039,26N04W23E00GP

01/22/98

Lease: JICARILLA A (8)

10³
10⁴

10³

10²
10³

10²

10
10²

10

1
10

1970

1972

1974

1976

1978

1980

1982

1984

1986

1988

1990

1992

1994

Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

F.P. Date: 11/67

County: RIO ARRIBA, NM

Oil Cum: 28.63 mbbbl

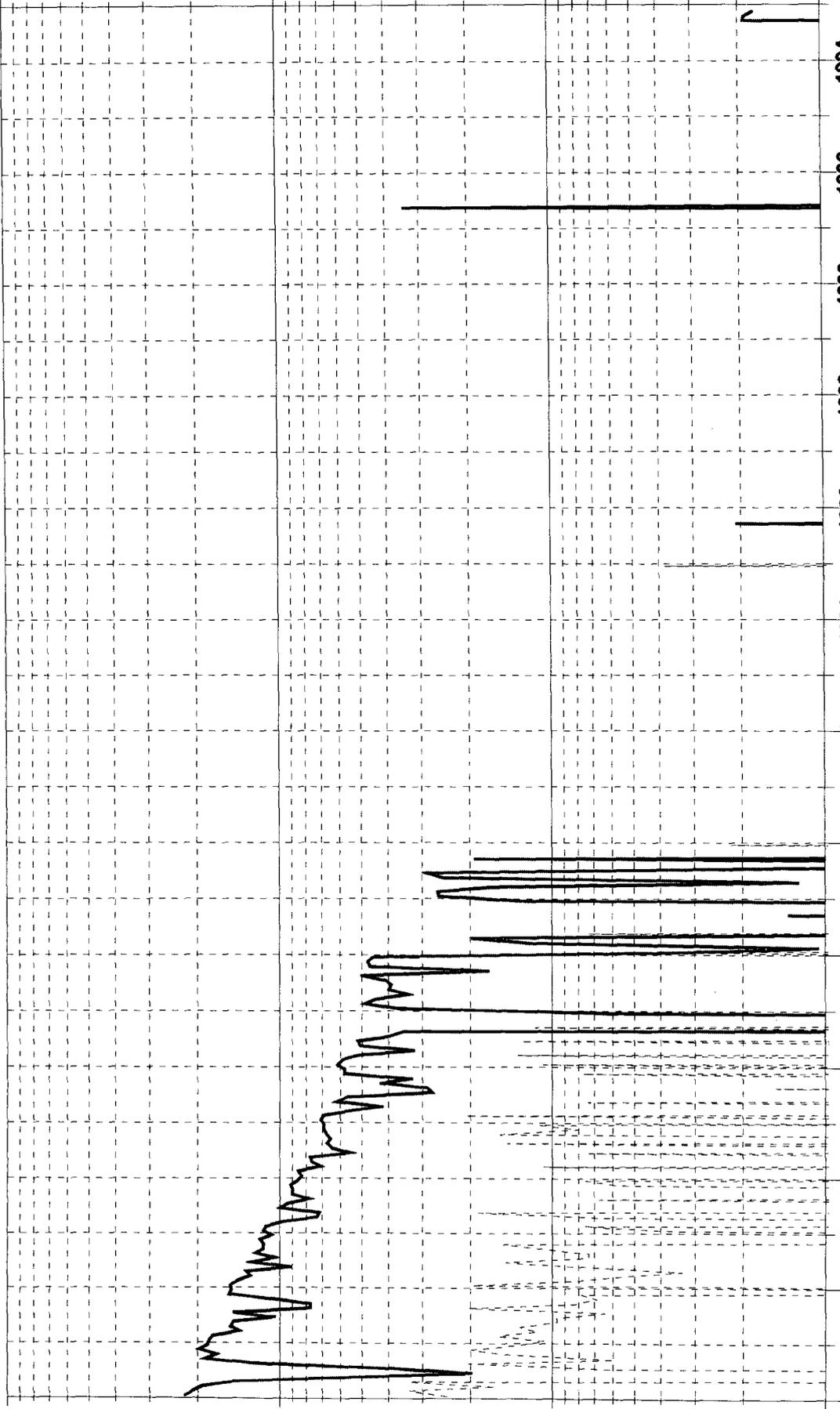
Field: WILD HORSE (GALLUP) GP

Gas Cum: 3533 mmcf

Reservoir: GALLUP

Location: 23E 26N 4W

Operator: MERIT ENERGY CORP



Dwights

Retrieval Code: 251,039,26N04W23E00MV

01/22/98

Lease: JICARILLA A (8)

10^3
 10^3

10^2
 10^2

10
10

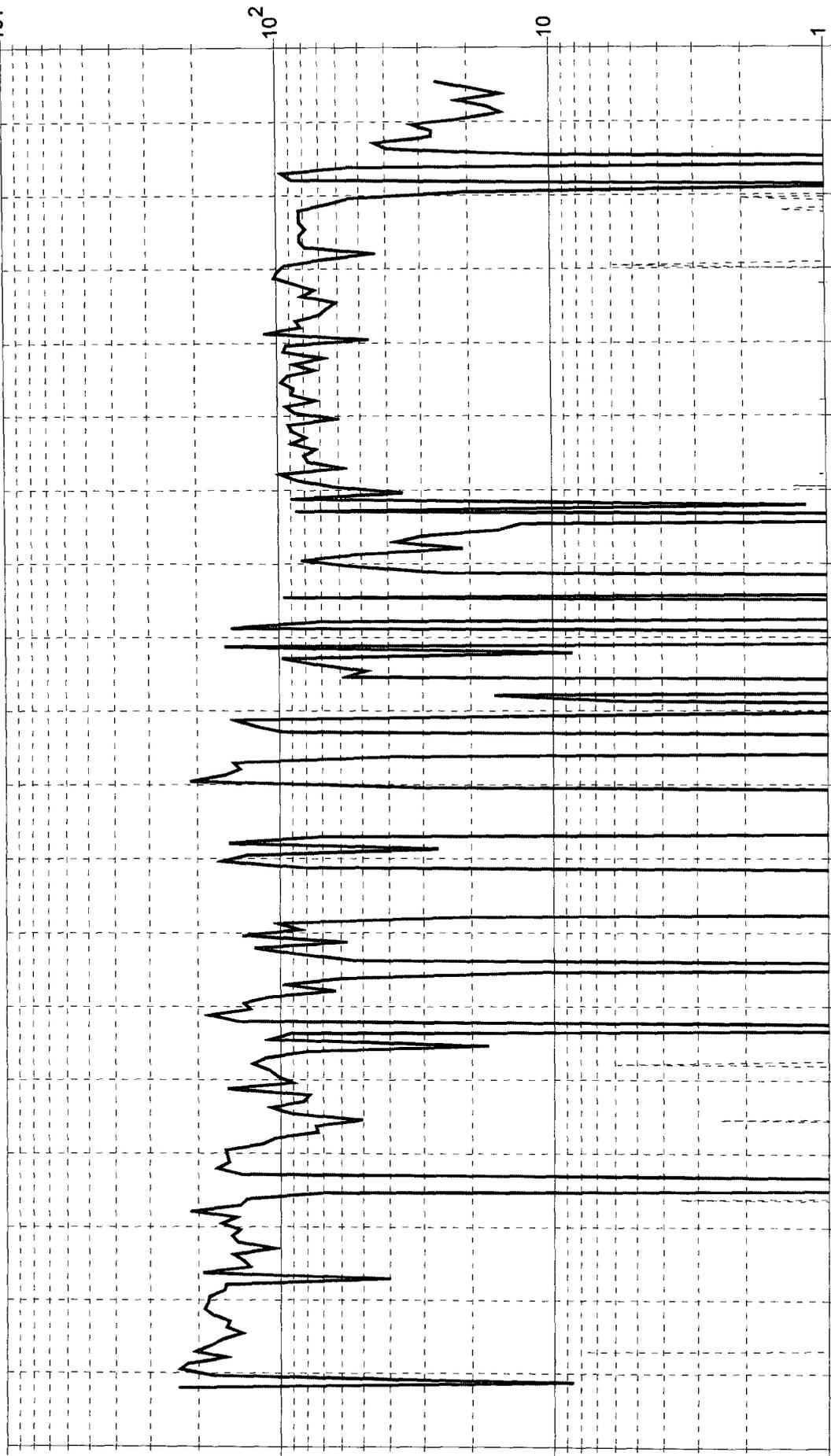
1
1

Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

1979 1981 1983 1985 1987 1989 1991 1993 1995 1997



| | |
|------------------------------|----------------------|
| County: RIO ARRIBA, NM | F.P. Date: 10/79 |
| Field: BLANCO (MESAVERDE) MV | Oil Cum: 1568 bbl |
| Reservoir: MESAVERDE | Gas Cum: 508.4 mmcf |
| Operator: CONOCO INC | Location: 23E 26N 4W |

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

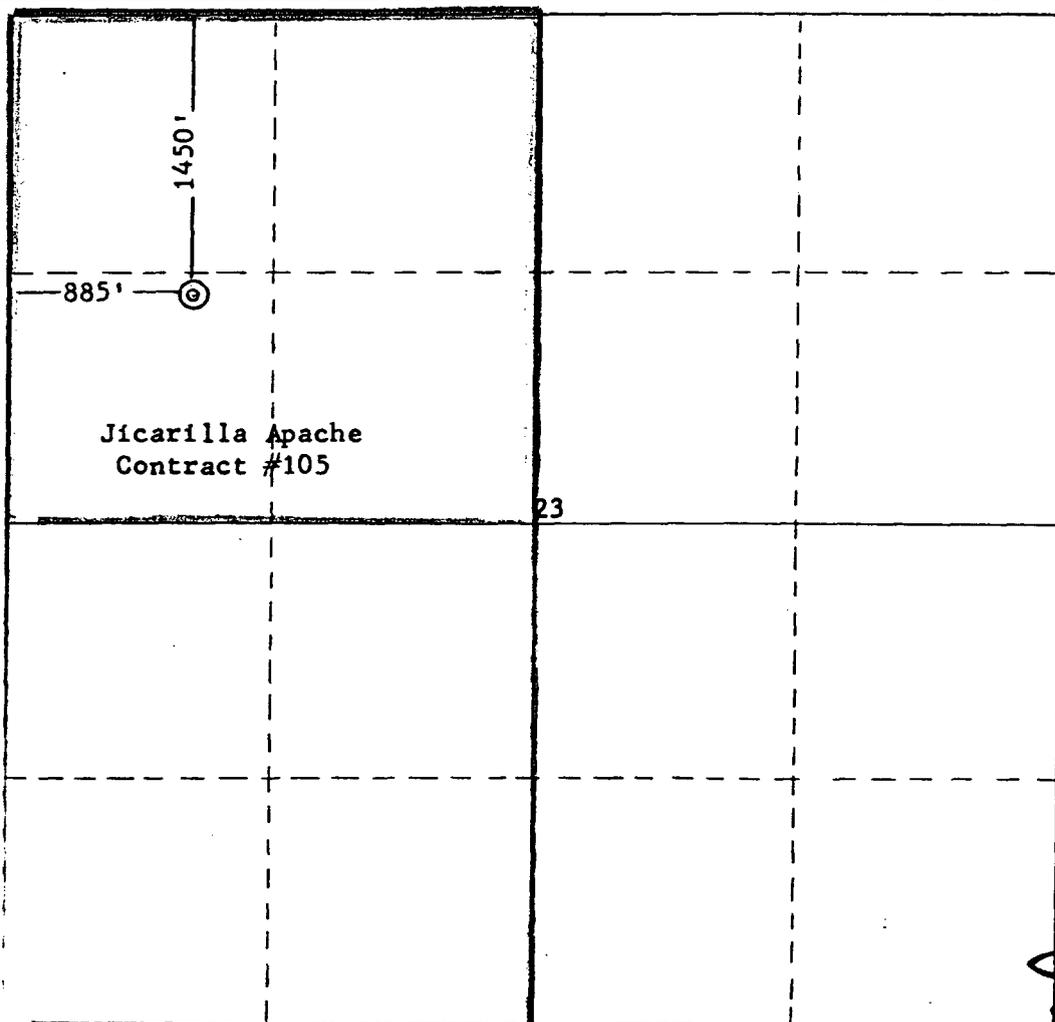
| | | | | | |
|---|---|-----------------------------|--|-----------------------------|---|
| Operator Supron Energy Corporation | | | Lease JICARILLA "A" | | Well No. 8 |
| Unit Letter E | Section 23 | Township 26 North | Range 4 West | County Rio Arriba | |
| Actual Footage Location of Well: 1450 feet from the NORTH line and 885 feet from the WEST line | | | | | |
| Ground Level Elev: 6863.0 | Producing Formation Dakota, Mesaverde & Gallup | | Pool Basin Dakota, Blanco Mv. & Wild Horse Gallup | | Dedicated Acreage: 320 W/2 Dakota & Mv. 160 NW/4 Gallup 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 Communitization

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.

Rudy D. Motto

Name
Rudy D. Motto
Position
Area Superintendent
Company
SUPRON ENERGY CORPORATION

Date
March 22, 1979

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.

James P. Leese

Date Surveyed
11 May 1967
Registered Professional Engineer and/or Land Surveyor
James P. Leese

Certificate No.



Conoco, Inc.
10 Desta Dr STE 100W
Midland, TX 79705

RE: Jicarilla A #8 Downhole Commingle Application C-107A
Section 23, T-26-N, R-4-W, E

Notification of Offset Operators:

Chateau Oil & Gas
2515 McKinney Ave STE 840
Dallas, TX 75201

Burlington Resources
PO Box 4289
Farmington, NM 87499

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
 Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION



ADMINISTRATIVE ORDER DHC-1095

Merit Energy Company
 12222 Merit Drive, Suite 1500
 Dallas, Texas 75251

Attention: Terry D. Gottberg

*Authorization to downhole commingle Basin Dakota Pool
 and Blanco Mesaverde Pool production.*

Dear Mr. Gottberg:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit downhole commingling in the wellbore, the production of the above mentioned pools in the following described wells:

| Well Name | Number | Unit Letter | Section |
|---------------|--------|-------------|---------|
| Jicarilla "A" | 8 | E | 23 |
| Jicarilla "A" | 9 | C | 14 |
| Jicarilla "A" | 10E | G | 23 |
| Jicarilla "A" | 13E | N | 13 |
| Jicarilla "A" | 22Y | K | 24 |
| Jicarilla "B" | 8A | D | 25 |

All wells located in Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

It appearing that the subject wells qualify for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject wells shall not exceed 30 barrels per day, and total water production shall not exceed 60 barrels per day.

VILLAGRA BUILDING - 458 Galisteo

Forestry and Resources Conservation Division
 P.O. Box 1948 87504-1948
 827-6820

Park and Recreation Division
 P.O. Box 1147 87504-1147
 827-7488

2048 South Pacheco

Office of the Secretary
 827-5850

Administrative Services
 827-5828

Energy Conservation & Management
 827-9800

Mining and Minerals
 827-5870

Oil Conservation
 827-7131

*Administrative Order DHC-1095
Merit Energy Company
February 21, 1995
Page 2*

The maximum amount of gas which may be produced daily from the wells shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

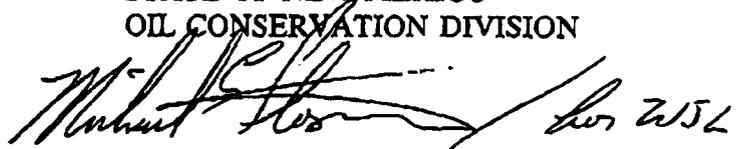
In accordance with the provisions of Rule 303-C, the supervisor of the Aztec District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject wells following their completion.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 21st day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6341
Order No. R-5857

APPLICATION OF SUPRON ENERGY
CORPORATION FOR DUAL COMPLETIONS
AND DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

me
MV & Sub-Order
DHC - Sub-Order

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 8, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 29th day of November, 1978, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Supron Energy Corporation, seeks the dual completion of its Jicarilla "A" Well No. 8 located in Unit E of Section 23; its Jicarilla "E" Well No. 7 located in Unit P of Section 15; and its Jicarilla "E" Well No. 8 located in Unit C of Section 15, all in Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Mesaverde formation through tubing and to produce commingled Gallup and Dakota production through a separate string of tubing with separation of the Mesaverde zone from the commingled zones by means of a packer.

(3) That the mechanics of the proposed dual completions are feasible and in accord with good conservation practices.



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Case No. 6341
Order No. R-5857

(4) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(5) That the reservoir characteristics of the Gallup and Dakota formations in each of the subject wells are such that underground waste would not be caused by the proposed commingling provided that the wells are not shut in for an extended period.

(6) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time any of the subject wells is shut in for 7 consecutive days.

(7) That in order to allocate the commingled production to each of the commingled zones in the subject wells, applicant should conduct tests during completion operations, and should consult with the supervisor of the Division's Aztec office to arrive at an allocation formula.

(8) That approval of the subject application will prevent waste and protect correlative rights.

(9) That Division Orders Nos. MC-1777, MC-1803, and MC-1802, which authorized the dual completion of the subject wells, should be superseded.

IT IS THEREFORE ORDERED:

(1) That the applicant, Supron Energy Corporation, is hereby authorized to dually complete its Jicarilla "A" Well No. 8 located in Unit E of Section 23; its Jicarilla "E" Well No. 7 located in Unit P of Section 15; and its Jicarilla "E" Well No. 8 located in Unit C of Section 15, all in Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to each produce gas from the Mesaverde formation through tubing and to produce commingled Gallup and Dakota production through a separate string of tubing with separation of the Mesaverde zone from the commingled zones to be achieved by means of a packer..

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said wells in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

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Case No. 6341
Order No. R-5857

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for the prorated gas wells in Northwest New Mexico.

(2) That the applicant, during completion operations on the subject wells, shall conduct tests, and shall consult with the supervisor of the Division's Aztec office to determine a formula for allocation of production to each zone in each well.

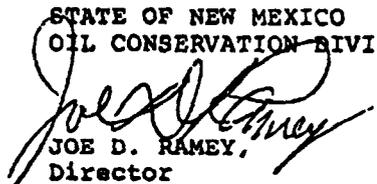
(3) That the operator of the subject wells shall immediately notify the Division's Aztec district office any time any such well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That Division Orders Nos. MC-1777, MC-1803, and MC-1802 are hereby superseded.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY,
Director

S E A L

dr/



Midland Division
Exploration Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

February 20, 1996

Mr. Ernie Busch
Aztec District Office
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

**Re: Jicarilla "A" No. 8 Downhole Commingling Allocation Formula Approval
Unit E, Section 23, Township 26 North, Range 4 West, Rio Arriba County
Downhole Commingling Authorized by Administrative Order DHC-1095**

Dear Mr. Busch:

Conoco recently purchased the subject well from Merit Energy Company. Downhole commingling approval had already been secured by Merit through Order DHC-1095, but apparently Merit had not yet contacted your office to secure approval of an allocation formula for the commingled well. Therefore, Conoco as the current operator is submitting the following production history and proposed fixed allocation formula for your approval.

EXHIBIT A: Blanco Mesaverde production history plot

EXHIBIT B: Basin Dakota production history plot

EXHIBIT C: -- Production plots with projected exponential decline fit of data
-- Historical data for both zones (cums, current rates, decline rates)
-- 1/1/96 producing rates
-- Proposed fixed allocation factors based on 1/1/96 rates

Since decline analysis of both producing zones indicates that both are producing at a stabilized 4.5% exponential decline, it is proposed that the following fixed percentage formula be established for proper allocation of production from this commingled well:

| | <u>GAS</u> | <u>OIL</u> |
|------------------|------------|------------|
| Blanco Mesaverde | 65 % | 26 % |
| Basin Dakota | 35 % | 74 % |

If you have any further questions or requirements for your consideration of this proposal, please contact me at (915) 686-6548.

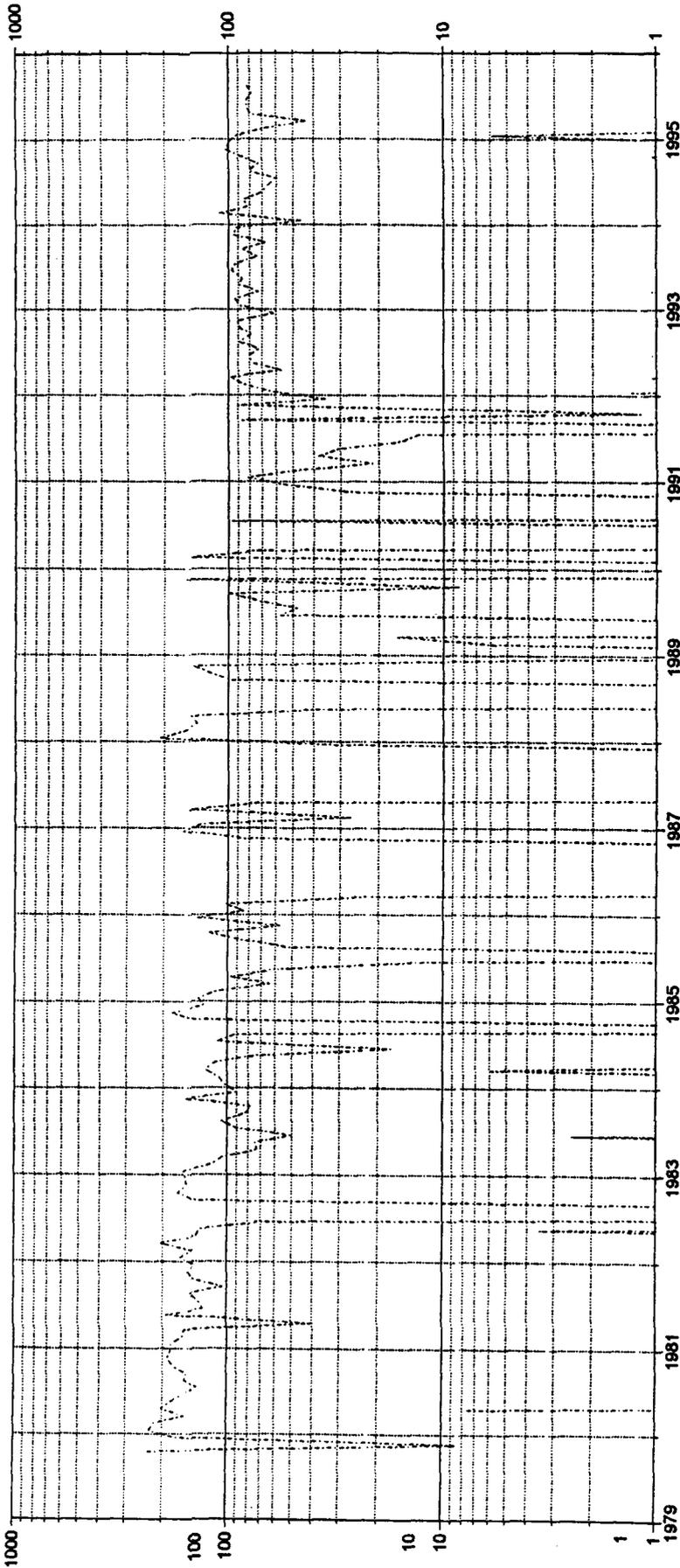
Very truly yours,

Jerry W. Hoover
Sr. Conservation Coordinator

Dwights

1000 Lease: JICARILLA A 000008

Retrieval Code: 251,039,26N04W23E00M

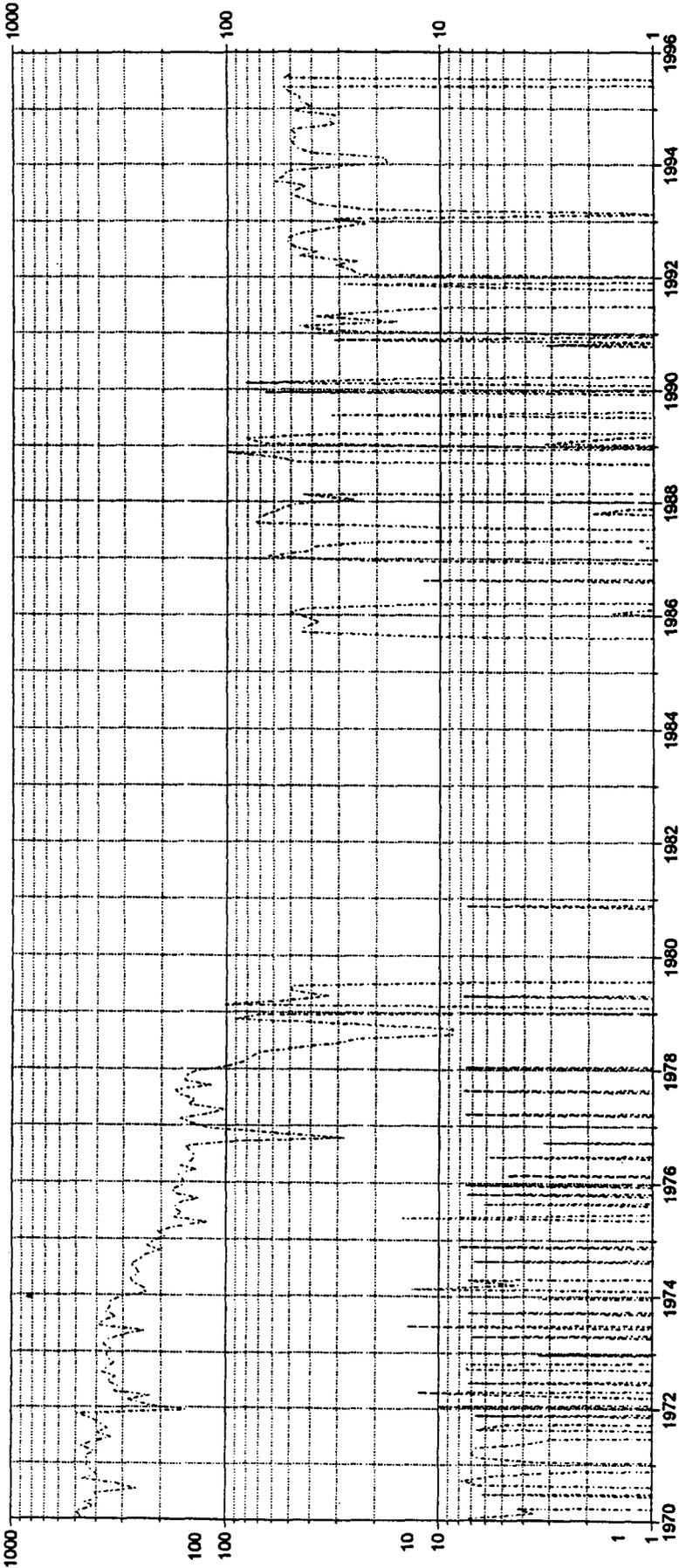


| | | | |
|-----------------------------|----------------------|------------------|----------------|
| County: RIO ARRIBA | State: NM | F.P. Date: 10/79 | Date: 02/07/96 |
| Field: BLANCO (MESAVEDE) MV | Oil Cum: 1409 bbl | Water (bbl/day) | Oil (bbl/day) |
| Reservoir: MESAVEDE | Gas Cum: 482369 mcf | Gas (mcf/day) | |
| Operator: CONOCO INC | Location: 23E 26N 4W | | |

Dwights

1000 Lease: JICARILLA A 000008

Retrieval Code: 251,039,26ND04W23E00D



County: RIO ARRIBA

Field: BASIN (DAKOTA) DK

Reservoir: DAKOTA

Operator: CONOCO INC

State: NM

Oil Cum: 18857 bbl

Gas Cum: 1217 mmcf

Location: 29E 26N 4W

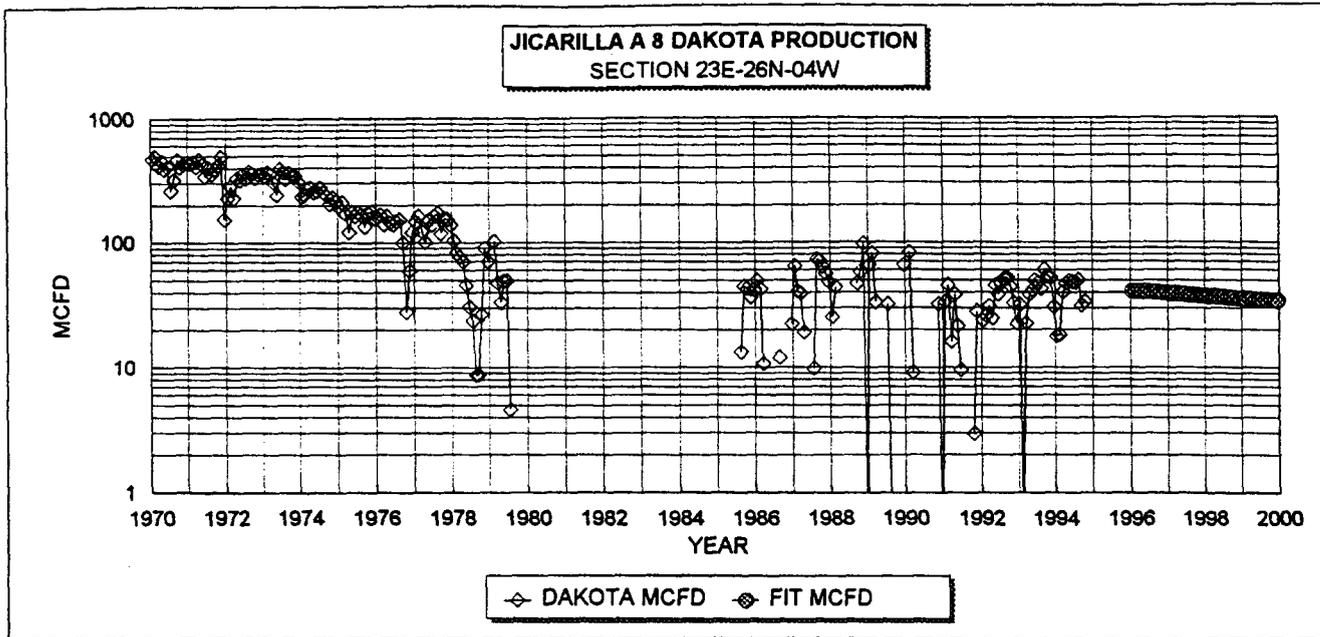
F.P. Date: 11/67

Water (bbl/day)

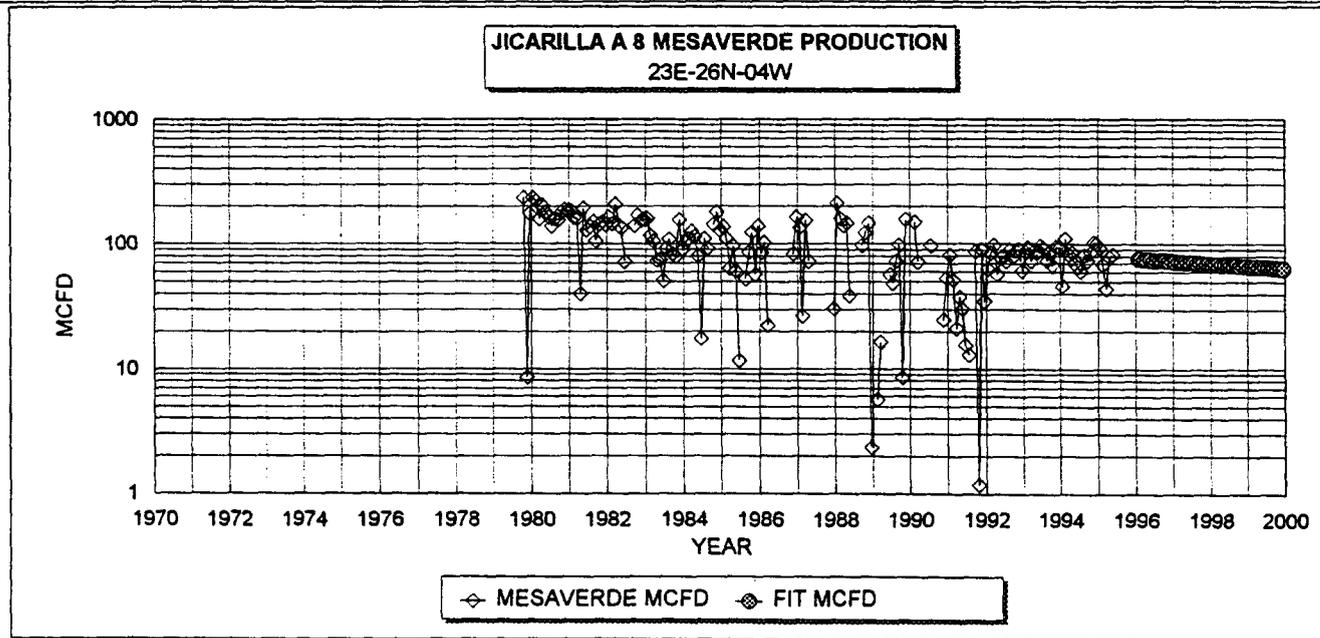
Gas (mcf/day)

Date: 02/07/96

Oil (bbl/day)



| | | |
|--------------------------------|----------------|----------------------------------|
| DAKOTA HISTORICAL DATA: | 1ST PROD: 11/6 | DAKOTA PROJECTED DATA |
| OIL CUM: | 18.86 MBO | 1/1/96 QI: 41 MCFD |
| GAS CUM: | 1217.00 MMCF | DECLINE RATE: 4.5% (EXPONENTIAL) |
| OIL YIELD: | 0.0155 BBL/MCF | |



| | | |
|----------------------------------|----------------|----------------------------------|
| MESAVERDE HISTORICAL DATA | 1ST PROD: 10/7 | MESAVERDE PROJECTED DATA |
| OIL CUM: | 1.41 MBO | 1/1/96 QI: 76 MCFD |
| GAS CUM: | 482.37 MMCF | DECLINE RATE: 4.5% (EXPONENTIAL) |
| OIL YIELD: | 0.0029 BBL/MCF | |

| | | |
|--|-----|-----|
| FIXED COMMINGLE ALLOCATION FACTORS: | | |
| | GAS | OIL |
| MESAVERDE: | 65% | 26% |
| DAKOTA: | 35% | 74% |

GAS ALLOCATION BASED ON PROJECTED 1996 RATES
OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

Contract #105

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apaches

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla "A"

9. WELL NO.

8

10. FIELD AND POOL OR WILDCAT

Basin, Dakota
Undesignated Gallup

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 23, T-26N, R-4W
N.M.P.M.

12. COUNTY OR PARISH

Rio Arriba

13. STATE

New Mexico

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other _____

2. NAME OF OPERATOR
Southern Union Production Company

3. ADDRESS OF OPERATOR
P. O. Box 808, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1450 ft. from the North line & 885 ft. from the West line

At top prod. interval reported below Same as above

At total depth Same as above

14. PERMIT NO. _____ DATE ISSUED _____

15. DATE SPUNDED 5/19/67 16. DATE T.D. REACHED 6/7/67 17. DATE COMPL. (Ready to prod.) 6/22/67 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 6873 ft. R.K.B. 19. ELEV. CASINGHEAD 6863 ft.

20. TOTAL DEPTH, MD & TVD 7965 MD & TVD 21. PLUG, BACK T.D., MD & TVD 7928 MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 2 23. INTERVALS DRILLED BY _____ ROTARY TOOLS 0-7965 CABLE TOOLS _____

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 7214-7240 ft. MD & TVD 7700-7872 ft. MD & TVD 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN Induction-Electrical, Density, Gamma Ray Correlation, Cement Bond 27. WAS WELL COBED. NO

28. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|-----------------|----------------|-----------|------------------|---------------|
| 10-3/4" | 32.75 | 302 ft. | 15" | 275 sacks | |
| 7-5/8" | 26.40 | 3750 ft. | 9-7/8" | 350 cu. ft. | |
| 5-1/2" | 15.50 & 17.0# | 7965 ft. | 6-3/4" | 750 cu. ft. | |

29. LINER RECORD

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) |
|------|----------|-------------|---------------|-------------|
| | | | | |

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|--------|----------------|-----------------|
| 1-1/2" | 7219 ft. | Gallup |
| 1-7/2" | 7628 ft. | KD. 7620 ft. |

31. PERFORATION RECORD (Interval, size and number)
Undesignated Gallup: 2/ft. 7214-7240

Dakota: 2/ft. 7700-7724, 7816-7825, 7828-7832, 7854-7872
Hole Size 0.48"

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED
7214-7240 Acidized w/500 gal. 7% Mud Acid
7700-7872 Acidized w/2500 gal. 15% Acid. Sand Frac. w/80,000# sand, 125,160 gal. 0.8% KCL water & 2000# glass beads.

33. PRODUCTION

DATE FIRST PRODUCTION _____ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) _____ WELL STATUS (Producing or shut-in) Shut-in

| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF. | WATER—BBL. | GAS-OIL RATIO |
|-----------------------|-----------------|-------------------------|-------------------------|----------|------------|-------------------------|---------------|
| 8/23/67 | 3 | 3/4" | → | | 348 | Gallup | |
| 8/31/67 | 3 | 3/4" | → | | 131 | Dakota | |
| FLOWING TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) | |
| 224 | 924 | → | | 2783 | Gallup | | |
| 160 | Packer | → | | 1991 | Dakota | | |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented TEST WITNESSED BY: Kenneth E. Roddy

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
Original signed by GILBERT D. NOLAND, JR. TITLE Drilling Superintendent DATE Sept. 25, 1967
SIGNED Gilbert D. Noland, Jr.

*(See Instructions and Spaces for Additional Data on Reverse Side)