

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]

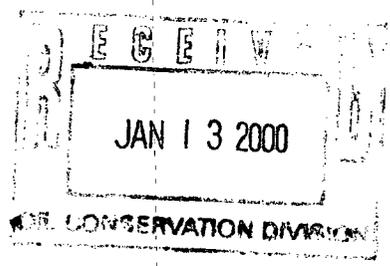
[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [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.

Deborah Moore (281) 293-1005 Deborah Moore Regulatory Analyst 1/13/00  
 Print or Type Name                      Signature                      Title                      Date

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First St., Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd, Aztec, NM 87410  
DISTRICT IV  
2040 S. Pacheco, Santa Fe, NM 87505

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  
Revised August 1999

APPROVAL PROCESS:

Administrative  Hearing

EXISTING WELLBORE

YES  NO

**APPLICATION FOR DOWNHOLE COMMINGLING**

Conoco Inc. P.O. Box 2197 Houston, TX 77252-2197

Operator Address

San Juan 28-7 48 L, Sec. 21, 28N & 7W Rio Arriba

Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 005073 Property Code 016608 API NO. 30-039-07362 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  | Basin Fruitland Coal 71629        | Blanco Pictured Cliff South 72439 | Blanco Mesaverde 72319                 |
| 2. Top and Bottom of Pay Section (Perforations)   | 2630 - 2660 Proposed              | 2430 - 2621 Proposed              | 4282 - 4874                            |
| 3. Type of production (Oil or Gas)  | Gas expected                      | Gas expected                      | Gas                                    |
| 4. Method of Production (Flowing or Artificial Lift)  | Expected to flow                  | Expected to flow                  | Flowing                                |
| 5. Bottomhole Pressure<br>Oil Zones - Artificial Lift:<br>Gas & Oil - Flowing:<br>All Gas Zones:<br>Estimated Current<br>Measured Current<br>Estimated Or Measured Original   | a. (Current) 432psi               | a. 360psi                         | a. 540psi                              |
|   | b. (Original) 1167psi             | b. 1119psi                        | b. 1250psi                             |
| 6. Oil Gravity (EAPI) or Gas BTU Content  | 1045                              | 1189                              | 1250                                   |
| 7. Producing or Shut-In?  | To be completed                   | To be completed                   | Producing                              |
| Production Marginal? (yes or no)<br><br>* If Shut-In, give date and oil/gas/water rates of last production<br><br>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data<br><br>* If Producing, give date and oil/gas/water rates of recent test (within 60 days) | Yes                               | Yes                               |  |
|   | Date:<br>Rates: est. 150-250 MCFD | Date:<br>Rates: est. 200-300 MCFD | Date:<br>Rates: Approx. Current 75MCFD |
|   | Date:<br>Rates:                   | Date:<br>Rates:                   | Date:<br>Rates:                        |
| 8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)   | 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

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 other?  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 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 Deborah Moore TITLE Regulatory Analyst DATE 1/4/02

TYPE OR PRINT NAME Deborah Moore TELEPHONE NO. (281) 293-1005

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State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe. NM 87505

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |  |   |  |   |                                |
|---|--|---|--|---|--------------------------------|
| <sup>1</sup> API Number<br>30-039-07362 |  | <sup>2</sup> Pool Code<br>71629/72439/72319 |  | <sup>3</sup> Pool Name<br>Basin Fruitland Coal, Blanco PC South, Blanco Mesaverde |                                |
| <sup>4</sup> Property Code<br>016608    |  | <sup>5</sup> Property Name<br>San Juan 28-7 |  |   | <sup>6</sup> Well Number<br>48 |
| <sup>7</sup> OGRID No.<br>005073        |  | <sup>8</sup> Operator Name<br>Conoco Inc.   |  |   | <sup>9</sup> Elevation         |

<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     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| L             | 21      | 28N      | 7W    |         | 1600'         | South            | 800'          | West           | Rio Arriba |

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

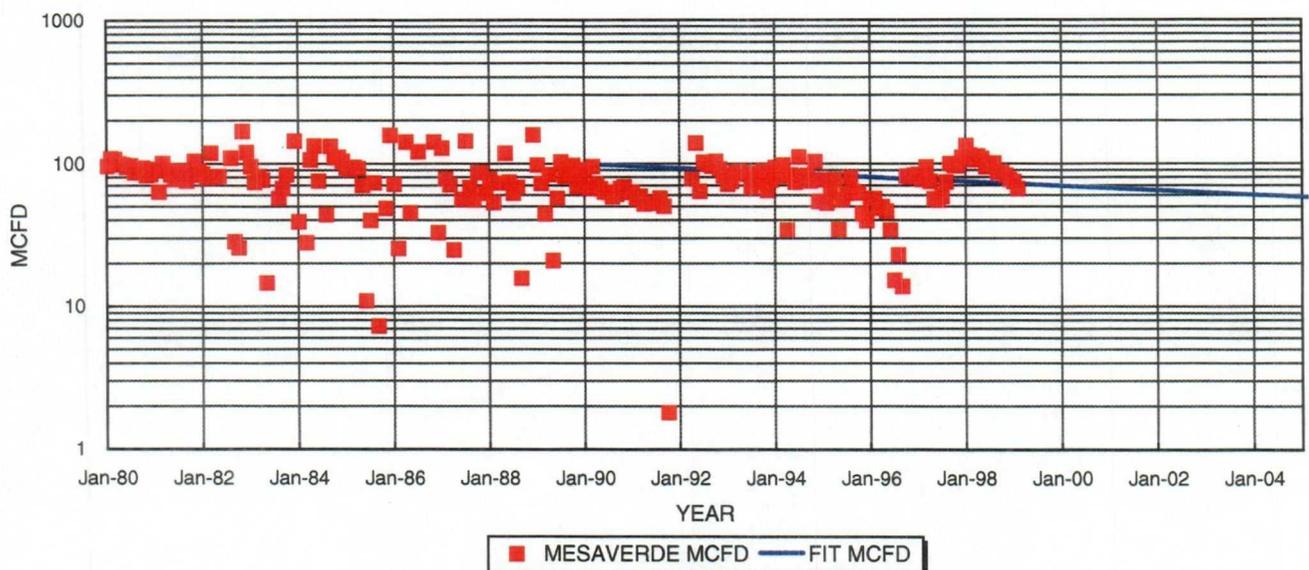
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|   |                                    |                                       |                         |
|---|------------------------------------|---------------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>320/160/80 | <sup>13</sup> Joint or Infill<br>I | <sup>14</sup> Consolidation Code<br>U | <sup>15</sup> 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

|               |  |
|---------------|--|
| <sup>16</sup> | <sup>17</sup> OPERATOR CERTIFICATION<br><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>  |
|               | Signature <i>Deborah Moore</i><br>Printed Name Deborah Moore<br>Title Regulatory Analyst<br>Date 1/5/00  |
|               | <sup>18</sup> SURVEYOR CERTIFICATION<br><i>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.</i> |
|               | Date of Survey<br>Signature and Seal of Professional Surveyor:   |
|               | Certificate Number   |

**SJ 28-7 #48 MESAVERDE PRODUCTION  
SECTION 21L-28N-07W, RIO ARRIBA COUNTY, NEW MEXICO**

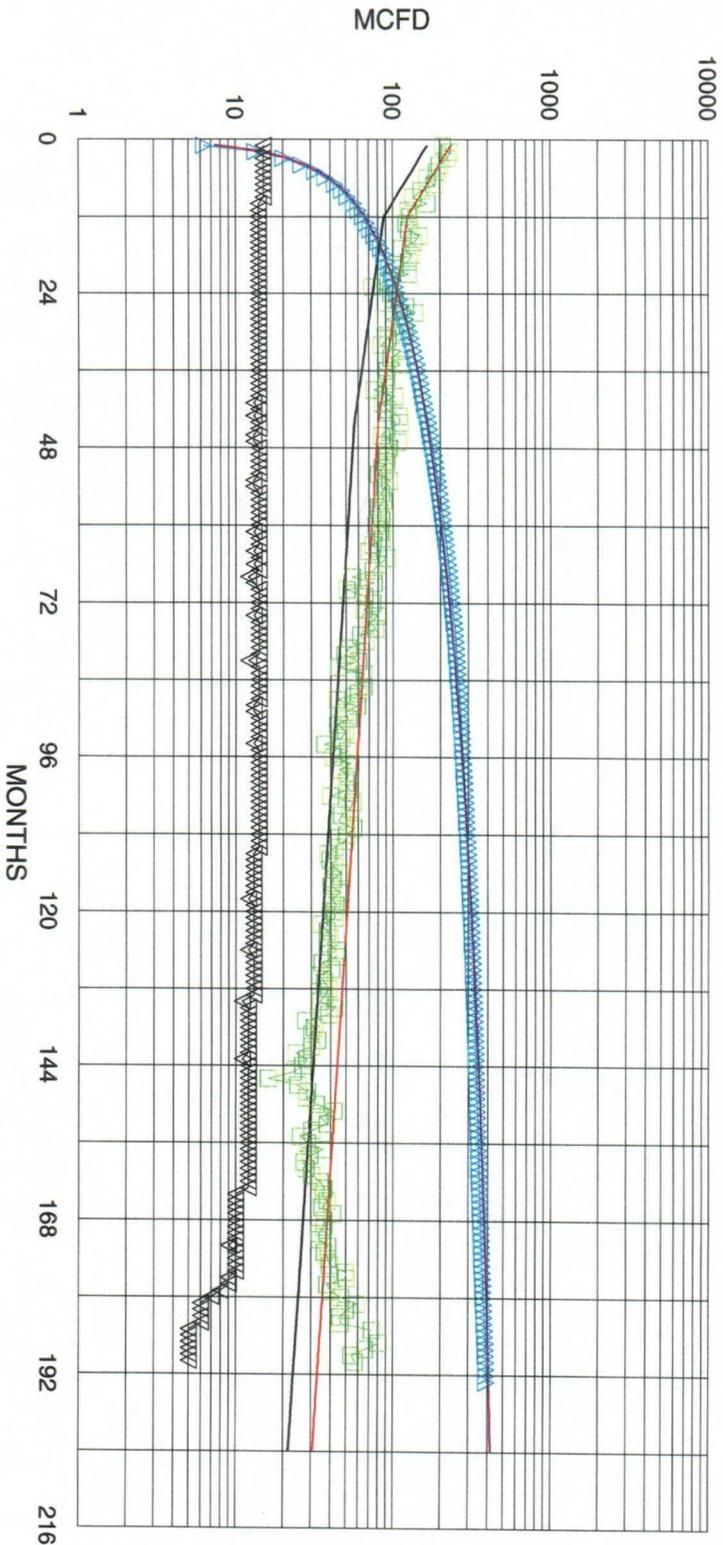


|                             |        |                        |  |                                 |      |               |
|-----------------------------|--------|------------------------|--|---------------------------------|------|---------------|
| <b>MESAVERDE PRODUCTION</b> |        | <b>1ST PROD: 05/56</b> |  | <b>MESAVERDE PROJECTED DATA</b> |      |               |
| OIL CUM:                    | 3.75   | MBO                    |  | Jan.00 Qi:                      | 70   | MCFD          |
| GAS CUM:                    | 1616.4 | MMCF                   |  | DECLINE RATE:                   | 3.5% | (EXPONENTIAL) |
| OIL YIELD:                  | 0.0023 | BBL/MCF                |  | API #30-039-07362               |      |               |

PRODUCTION FORECAST FOR SUBTRACTION METHOD COMMINGLE ALLOCATION

| YEAR | MID-YEAR<br>AVG. MCFD | MID-YEAR<br>AVG. BOPD |
|------|-----------------------|-----------------------|
| 2000 | 69                    | 0                     |
| 2001 | 66                    | 0                     |
| 2002 | 64                    | 0                     |
| 2003 | 62                    | 0                     |
| 2004 | 60                    | 0                     |
| 2005 | 58                    | 0                     |
| 2006 | 56                    | 0                     |
| 2007 | 54                    | 0                     |
| 2008 | 52                    | 0                     |
| 2009 | 50                    | 0                     |
| 2010 | 48                    | 0                     |
| 2011 | 46                    | 0                     |
| 2012 | 45                    | 0                     |
| 2013 | 43                    | 0                     |
| 2014 | 42                    | 0                     |
| 2015 | 40                    | 0                     |
| 2016 | 39                    | 0                     |
| 2017 | 38                    | 0                     |
| 2018 | 36                    | 0                     |
| 2019 | 35                    | 0                     |
| 2020 | 34                    | 0                     |
| 2021 | 33                    | 0                     |
| 2022 | 31                    | 0                     |
| 2023 | 30                    | 0                     |
| 2024 | 29                    | 0                     |
| 2025 | 28                    | 0                     |
| 2026 | 27                    | 0                     |
| 2027 | 26                    | 0                     |

**NORMALIZED PICTURED CLIFFS PRODUCTION**  
 PROD. SINCE 1980: 15 PC WELLS LOCATED IN 28N-7W AND 27N-7W (Secs. 1:12)



Normalized plot for supporting SU 28-7 PC recompletions

- FIT MCFD
- ▽ WELLS ON PRODUCTION
- NORMALIZED MCFD
- FIT CUM MMCF
- △ NORM CUM MMCF
- RISKED MCFD

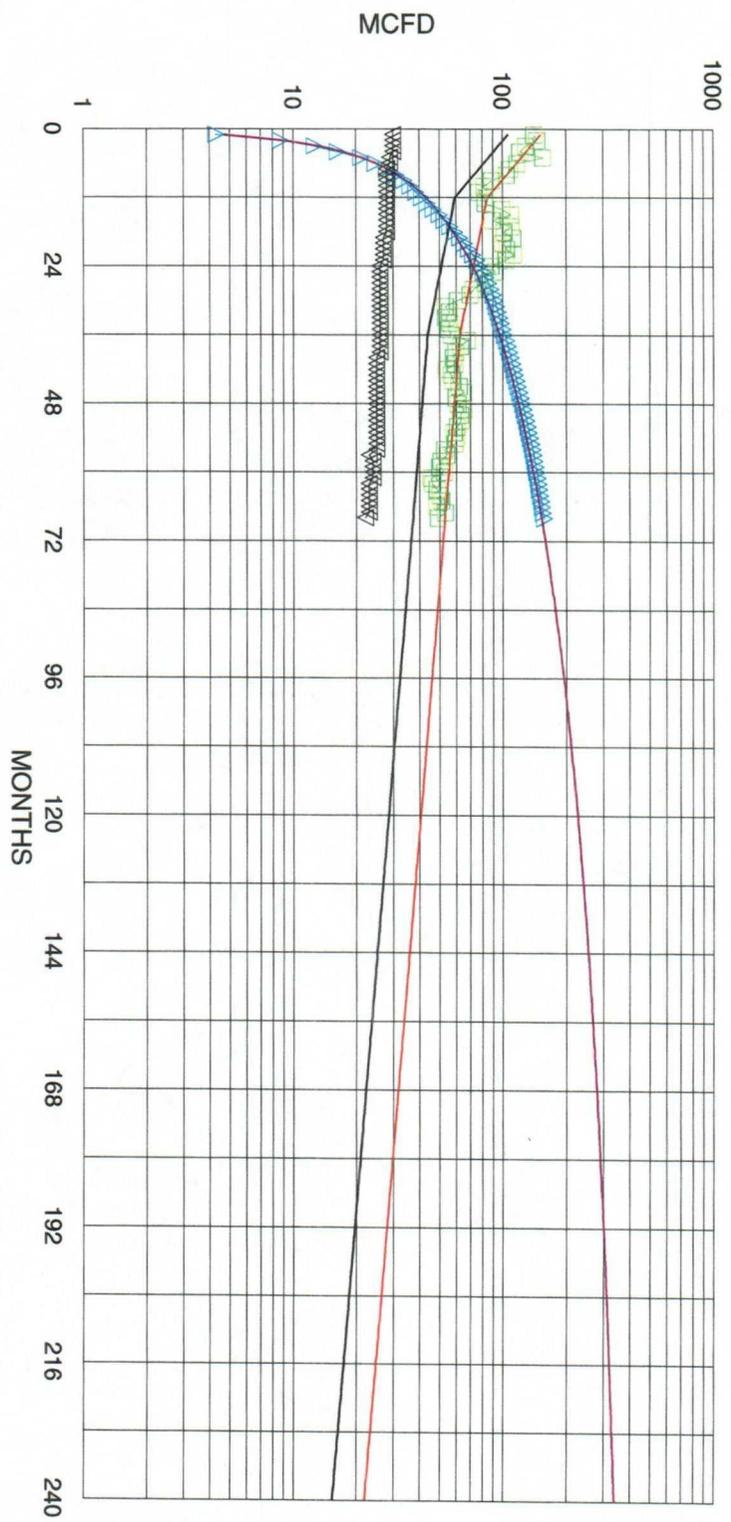
**NORMALIZED AVG:**  
 522 MMCF EUR  
 524 MMCF/33.5YRS  
 10 MCFD E.L.  
 0.000158 bbl/mcf oil yield

250 MCFD IP  
 50% DECLINE, 1ST 12 MONTHS  
 15% DECLINE, NEXT 36 MONTHS  
 7% FINAL DECLINE

**RISKED AVG:** 30% RISK  
 350 MMCF EUR  
 349 MMCF/27.8 YRS  
 10 MCFD E.L.  
 0.000158 bbl/mcf oil yield

175 MCFD IP  
 50% DECLINE, 1ST 12 MONTHS  
 15% DECLINE, NEXT 36 MONTHS  
 7% FINAL DECLINE

**NORMALIZED FRUITLAND COAL PRODUCTION**  
 30 WELLS SINCE 1990: 28N-7W & 27N-7W



Normalized plot for supporting SJ 28-7 FC recompletions

- FIT MCFD
- ▽ WELLS ON PRODUCTION
- NORMALIZED MCFD
- FIT CUM MMCF
- △ NORM CUM MMCF
- RISKED MCFD

**NORMALIZED AVG:**

|                          |
|--------------------------|
| 408 MMCF EUR             |
| 337 MMCF IN 20 YRS       |
| 10 MCFD E.L.             |
| 0.0000 bbl/mcf oil yield |

|                             |
|-----------------------------|
| 160 MCFD IP                 |
| 47% DECLINE, 1ST 12 MONTHS  |
| 14% DECLINE, NEXT 24 MONTHS |
| 6% FINAL DECLINE            |

**RISKED AVG: 30% RISK**

|                          |
|--------------------------|
| 268 MMCF EUR             |
| 237 MMCF IN 20 YRS       |
| 10 MCFD E.L.             |
| 0.0000 bbl/mcf oil yield |

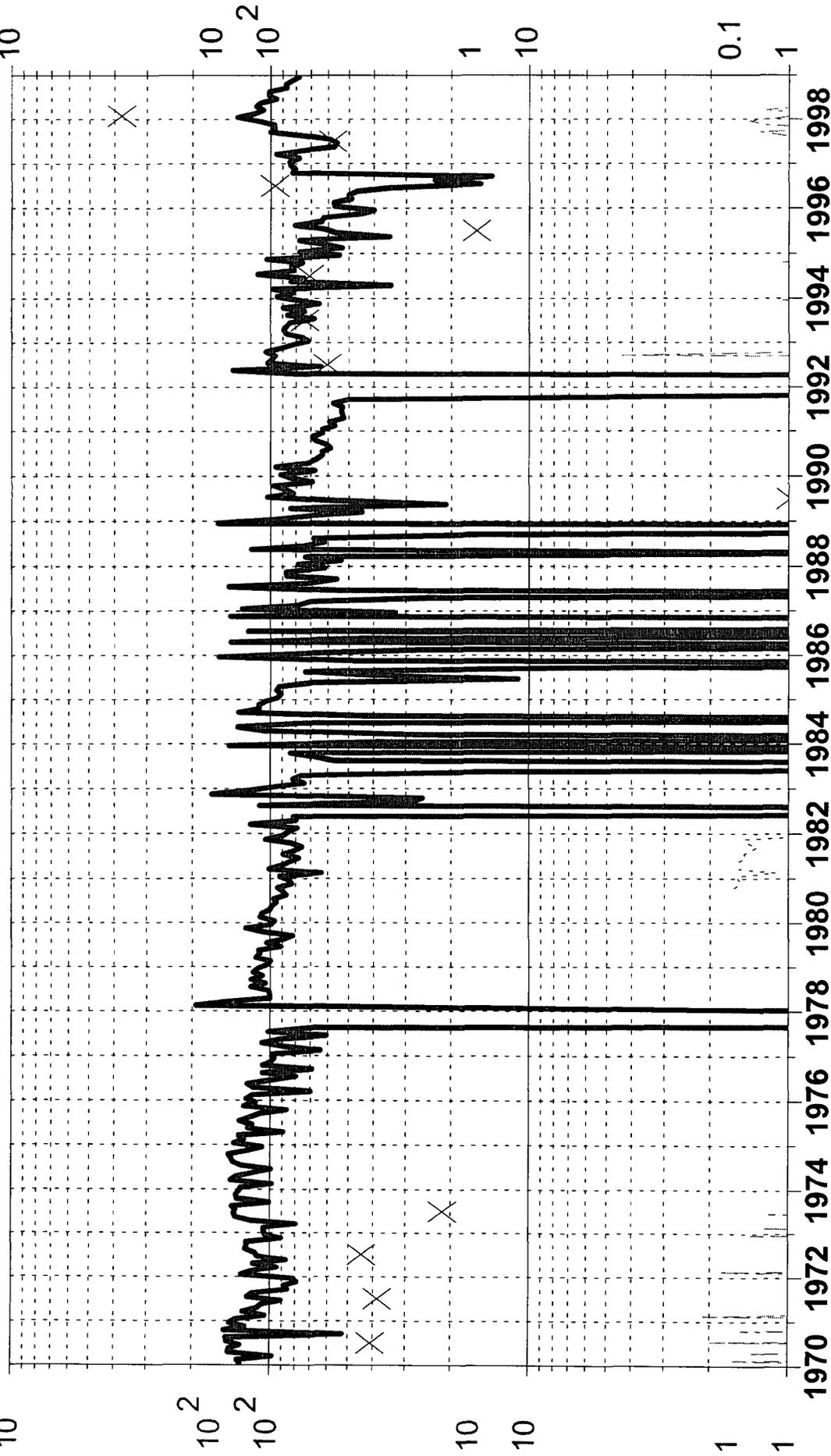
|                             |
|-----------------------------|
| 112 MCFD IP                 |
| 47% DECLINE, 1ST 12 MONTHS  |
| 14% DECLINE, NEXT 24 MONTHS |
| 6% FINAL DECLINE            |

# Dwights

Lease: SAN JUAN 28 7 UNIT (48)

Retrieval Code: 251,039,28N07W21L00MV  
11/12/99

$10^3$   
 $10^2$   
 $10^3$



Gas (mcf/day)

Oil (bbl/day)

Operator: CONOCO INC

Location: 21L 28N 7W

F.P. Date: 05/56

Oil Cum: 3747 bbl

Water (bbl/day)

Yield (bbl/mmcf) Av

Field: BLANCO (MESAVERDE) Gas Cum: 1616 mmcf

Reservoir: MESAVERDE L.P. Date: 02/99

Lease: SAN JUAN 28 7 UNIT  
 Field: BLANCO (MESAVARDE) MV  
 Operator: CONOCO INC  
 RCI #: 251.039,28ND07W21L00MV  
 API #: 30-039-07362-00

Well #: 48  
 Location: 21L 28N 7W  
 Liquid Cum: 3,747 bbls  
 Gas Cum: 1,616,377 mcf  
 Status: ACT GAS

FP Date: 56-05  
 LP Date: 99-02  
 Liq Since: FPPDATE  
 Gas Since: FPPDATE

| DATE    | OIL, BBLs | GAS, MCF | WATER, BBLs | WELLS |
|---------|-----------|----------|-------------|-------|
| 03/1998 | 37        | 3,231    | 0           | 1     |
| 04/1998 | 27        | 3,441    | 0           | 1     |
| 05/1998 | 23        | 3,308    | 0           | 1     |
| 06/1998 | 23        | 2,881    | 0           | 1     |
| 07/1998 | 11        | 3,071    | 0           | 1     |
| 08/1998 | 10        | 3,066    | 0           | 1     |
| 09/1998 | 25        | 2,630    | 0           | 1     |
| 10/1998 | 4         | 2,649    | 0           | 1     |
| 11/1998 | 13        | 2,510    | 0           | 1     |
| 12/1998 | 5         | 2,356    | 0           | 1     |
| 01/1999 | 2         | 2,263    | 0           | 1     |
| 02/1999 | 0         | 2,016    | 0           | 1     |
| Total   | 180       | 33,422   | 0           |       |

