

DATE IN 7.12.04	SUSPENSE	ENGINEER Jones	LOGGED IN 7.14.04	TYPE DHC	APP NO. DSEM0419632998
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



### ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [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

[D] Other: Specify \_\_\_\_\_

#### [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] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

e-mail Address

RECEIVED

JUL 12 2004

OIL CONSERVATION  
DIVISION

**MERRION**

OIL & GAS

July 8, 2004

Mr. William Jones  
New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

**RE: Application for Administrative Approval  
Downhole Commingling  
Wildcat Fruitland Sand, Basin Fruitland and Gavilan Pictured Cliffs Pools  
Cookie Dough No. 1  
Section 24, T24N, R2W  
Rio Arriba County, New Mexico**

Dear Mr. Jones:

Merrion Oil & Gas (Merrion) requests administrative approval for downhole commingling of the Wildcat Fruitland Sand, Basin Fruitland and the Gavilan Pictured Cliffs in the subject wellbore. The following information is provided in support of this application.

I. History and Justification

The Cookie Dough No. 1 is scheduled for approval by the Rio Puerco BLM office the week of July 12, 2004. Drilling will begin as soon as a rig is available.

There is Pictured Cliffs production in the area. A few Fruitland Coal wells have been drilled, however none of these have been commercially productive. The Fruitland Sand has not been tested (to our knowledge). We propose to commingle production from these three zones because we believe that no one zone would be economically productive. All three zones together would justify the drilling and operating cost of the well.

II. Proposed Spacing Units

Exhibit 1 is the C-102 plat for the Wildcat Fruitland Sand Pool with a 160 acre spacing unit in the northeast quarter of Section 24. Exhibit 2 is the C-102 plat for the Basin Fruitland Pool with a 320 acre spacing unit in the north half of Section 24. Exhibit 3 is the C-102 plat for the Gavilan Pictured Cliffs Pool with a 160 acre spacing unit in the northeast corner of section 24.

III. Allocation Methodology

Exhibit 4 is a map showing offset Pictured Cliffs wells, and exhibits 5 through 9 show the Pictured Cliffs production from five of these offsets to the subject well. We project that the Pictured Cliffs will produce about 30 MCFD. The Fruitland Sand is a wildcat pool in this

area and we do not have production data to predict its performance. Open hole log information indicates that the interval may be productive, so we propose to test it. Our conservative estimate is about 20 MCFD, but we can not accurately predict the Fruitland Sand production. The Fruitland Coal has been tested in this area. Unfortunately, it has been tested in deeper, plugged back wellbores drilled many years earlier. We believe that the coal was damaged by mud drilling, and in some cases, lost circulation in the Fruitland interval. We plan to air drill through the Fruitland Coal to avoid formation damage. We estimate that the Fruitland Coal will produce about 50 MCFD. Again, we have no data to support this, however, we believe that commingling these three formations provides the best chance of success for each interval.

Merrion proposes to obtain stabilized production tests on each zone separately and use a fixed percentage to allocate future production between the three zones. If subsequent data indicate the need, additional testing may be done in the future to adjust the allocation percentages.

IV. Reservoir Fluid Compatibility

Water analyses are not available for wells in the immediate area. However, the waters of the Fruitland Sand, Coal and Pictured Cliffs have been generally determined to be compatible across the basin based on other similar applications to the NMOCD.

V. Cross Flow Between Zones

The reservoir pressure of all three zones is estimated to be about 850 psig. Therefore, crossflow is not anticipated to be a problem.

VI. Well Ownership Notification

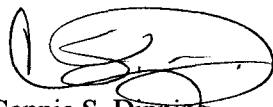
The ownership of the three zones is identical, so no notification is necessary.

VII. Summary

Projected reserves for any one zone are not sufficient to justify drilling the well. Commingling the zones will maximize reserves and protect correlative rights. Therefore, we request your approval of this application.

If you have questions or need additional information, please call me at 505.324.5326.

Sincerely,



Connie S. Dinning  
Production Engineer

Cc: Steve Hayden, Aztec NMOCD  
BLM, Farmington Field Office

District I  
1625 N. French Drive, Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

APPLICATION TYPE  
☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☐ Yes ☒ No

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Merrion Oil & Gas Address 610 Reilly Ave., Farmington, NM 87401  
Lease Cookie Dough Well No. 1 Unit Letter-Section-Township-Range G-24-24N-2W County Rio Arriba  
OGRID No. 014634 Property Code \_\_\_\_\_ API No. \_\_\_\_\_ Lease Type: ☒ Federal ☐ State  
Fee \_\_\_\_\_

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Wildcat 24N2W23 Fruitland Sand	Basin Fruitland (Pre-approved w/ Gavilan PC)	<del>Basin Pictured Cliffs</del> <u>S. BLANCO</u> (Pre-Approved w/ Basin FC) <u>P. Coz</u>
Pool Code		71629	<del>77560</del> <u>72439</u>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3180' - 3234'	3234' - 3320'	3320' - 3340'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	841 psi Estimated from 0.26 gradient	863 psi Estimated from 0.26 gradient	868 psi Estimated from 0.26 gradient
Oil Gravity or Gas BTU (Degree API or Gas BTU)	±1100 BTU/SCF	±1000 BTU/SCF	±1100 BTU/SCF
Producing, Shut-In or New Zone	New Zone	New Zone	New Zone
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.)	Date: Estimated from Offsets  Rates: 20 MCFD	Date: Estimated from Offsets  Rates: 50 MCFD	Date: Estimated from Offsets  Rates: 30 MCFD 0 BOPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas  0 % 20%	Oil Gas  0 % 50%	Oil Gas  100 % 30%

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No \_\_\_\_\_  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? NA Yes \_\_\_\_\_ No \_\_\_\_\_  
Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No \_\_\_\_\_  
Will commingling decrease the value of production? Yes \_\_\_\_\_ No ☒ \_\_\_\_\_  
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands  
or the United States Bureau of Land Management been notified in writing of this application? Yes ☒ No \_\_\_\_\_  
NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

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, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools  
List of all operators within the proposed Pre-Approved Pools  
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.  
Bottomhole pressure data.

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

SIGNATURE [Signature] TITLE Production Engineer DATE 7/7/04

TYPE OR PRINT NAME Connie Dinning TELEPHONE NO. ( 505 ) 324-5326

E-MAIL ADDRESS cdinning@merrion.bz

State of New Mexico  
Energy, Minerals & Mining Resources Department  
**OIL CONSERVATION DIVISION**  
2040 South Park Avenue  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

APA Number	Pool Code NA	Pool Name WC24N2W24; Fruitland Sand
Property Code	Property Name COOKIE DOUGH	
OGRD No. 014634	Operator Name MERRION OIL & GAS	
		Well Number 1
		Elevation 7386'

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet From	North/South	Feet From	East/West	County
G	24	24 N.	2 W.	SW NE	1935'	NORTH	1490'	EAST	RIO ARriba

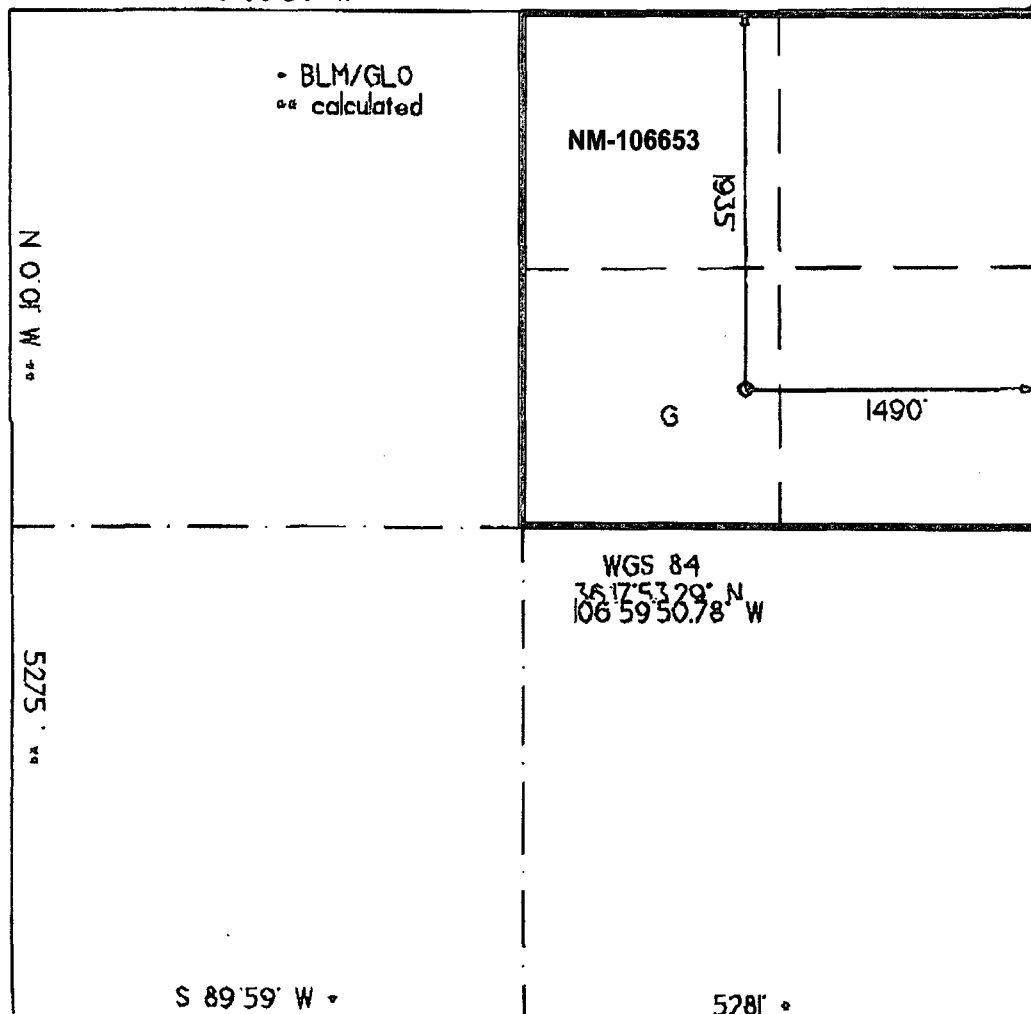
Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet From	North/South	Feet From	East/West	County

Dedication 320	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

S 89°56' W •

5283' •

**OPERATOR CERTIFICATION**

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

Signature

Printed Name

Connie Dinning

Title

Production Engineer

Date

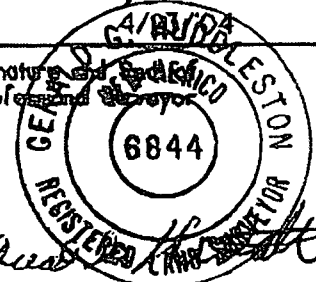
July 6, 2004

**SURVEYOR CERTIFICATION**

I hereby certify that the well location 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



State of New Mexico  
Energy, Minerals & Mining Resources Department  
**OL CONSERVATION DIVISION**  
2040 South Parkway  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

APA Number	Pool Code 71629	Pool Name Basin Fruitland
Property Code	Property Name COOKIE DOUGH	Well Number 1
OGED No. 014634	Operator Name MERRION OIL & GAS	Elevation 7386'

Surface Location									
UL or Lor	Sec	Twp	Rge	Lot Ltr	Feet From	North/South	Feet From	East/West	County
G	24	24 N.	2 W.	SW NE	1935'	NORTH	1490'	EAST	RIO ARriba

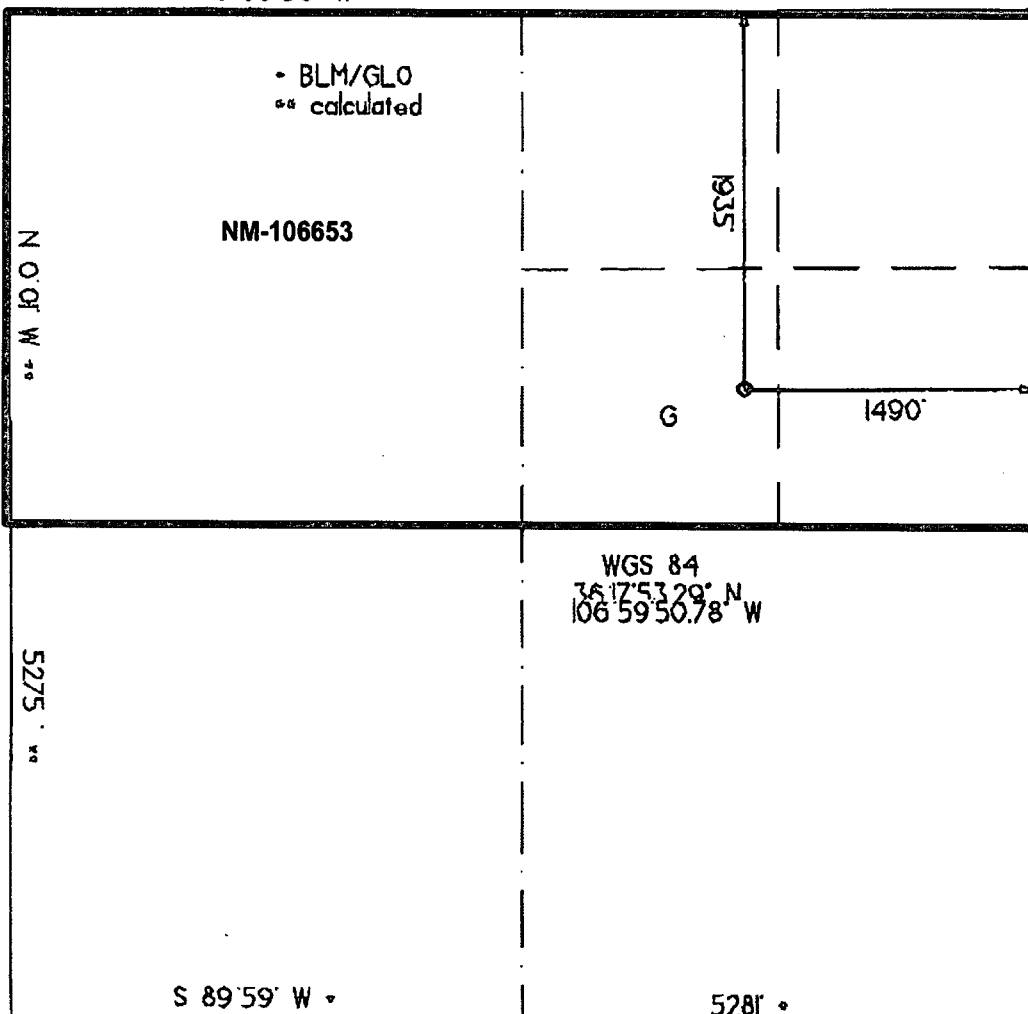
Bottom Hole Location if Different From Surface									
UL or Lor	Sec	Twp	Rge	Lot Ltr	Feet From	North/South	Feet From	East/West	County

Dedication 320	Joint ?	Consolidation	Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

S 89°56' W •

5283' •

**OPERATOR CERTIFICATION**

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

Signature

Printed Name

Connie Dinning

Title

Production Engineer

Date

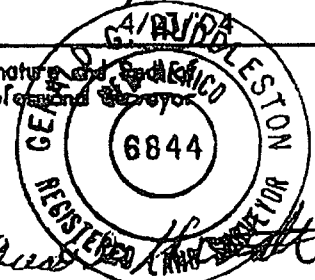
May 17, 2004

**SURVEYOR CERTIFICATION**

I hereby certify that the well location 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



State of New Mexico  
Energy, Minerals & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Park Avenue  
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number	Pool Code 77360	Pool Name Gavilan Pictured Cliffs
Property Code	Property Name COOKIE DOUGH	Well Number 1
OGRD No. 014634	Operator Name MERRION OIL & GAS	Elevation 7386'

## Surface Location

UL or Lot	Sec.	Twp.	Rge.	Lot Ltr.	Feet From	North/South	Feet From	East/West	County
G	24	24 N.	2 W.	SW NE	1935'	NORTH	1490'	EAST	RIO ARriba

## Bottom Hole Location if Different From Surface

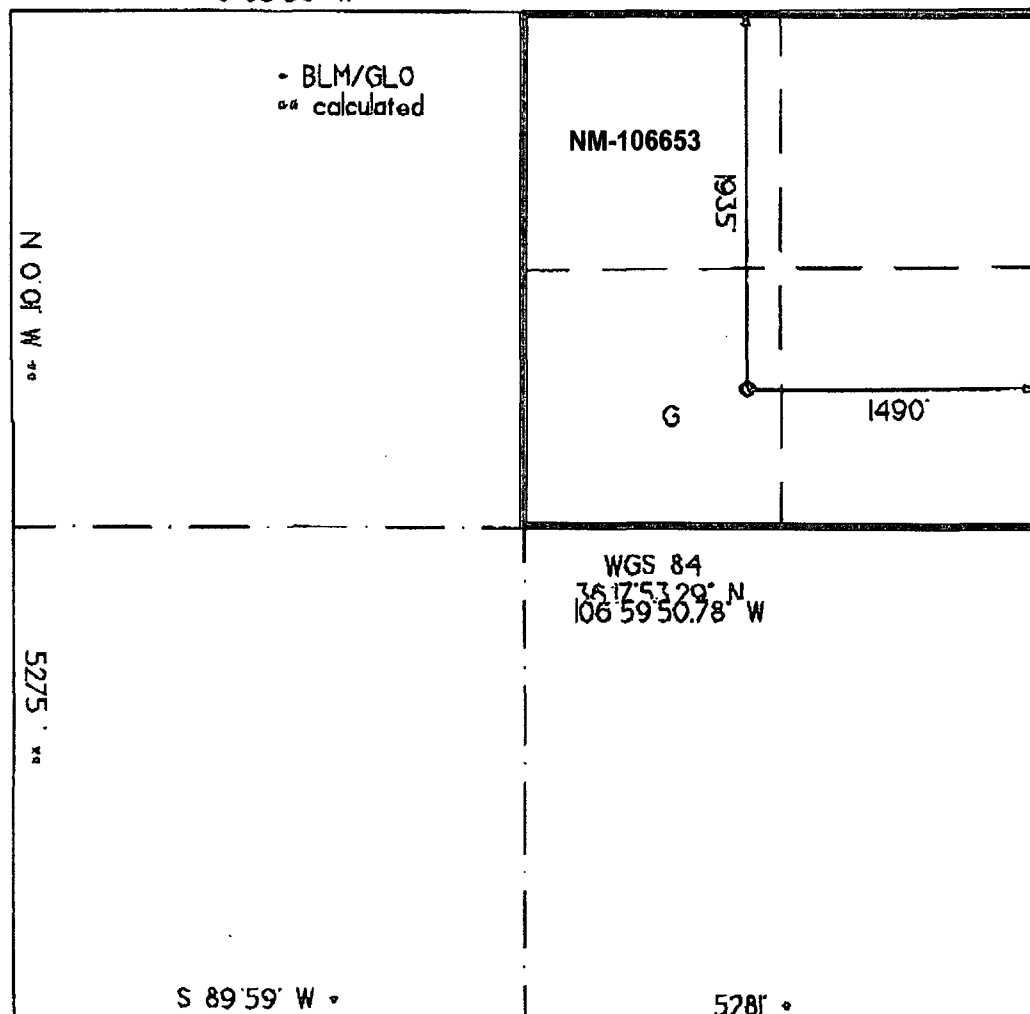
UL or Lot	Sec.	Twp.	Rge.	Lot Ltr.	Feet From	North/South	Feet From	East/West	County

Dedication 320	Joint ?	Consolidation	Order No.
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NO ALLOWABLE WELL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

S 89°56' W •

5283' •



## OPERATOR CERTIFICATION

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

Signature

Printed Name

Connie Dinning

Title

Production Engineer

Date

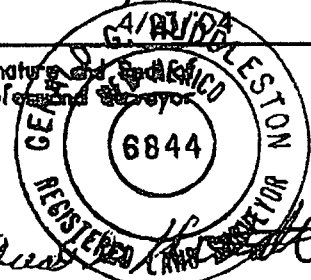
May 17, 2004

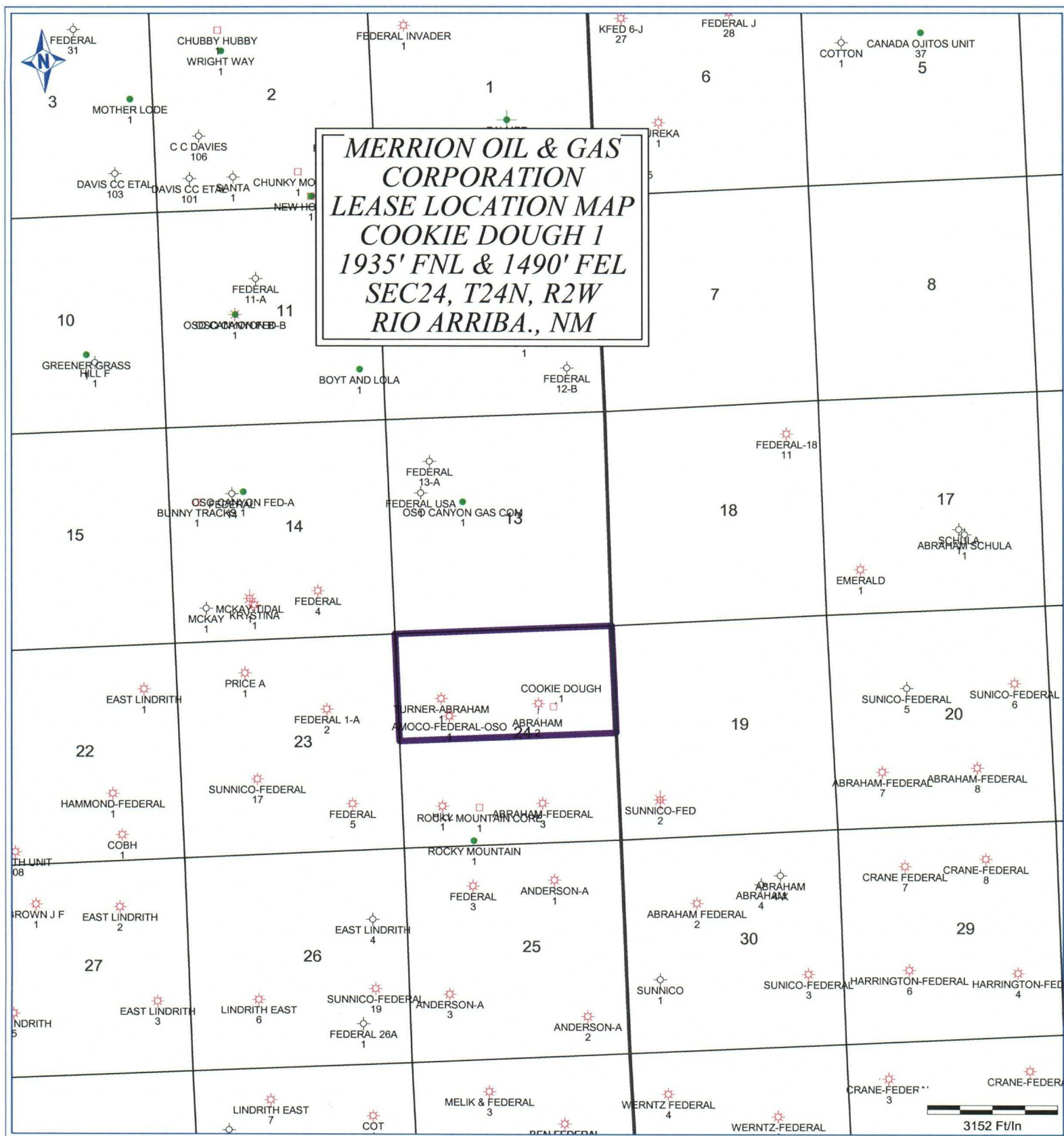
## SURVEYOR CERTIFICATION

I hereby certify that the well location 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

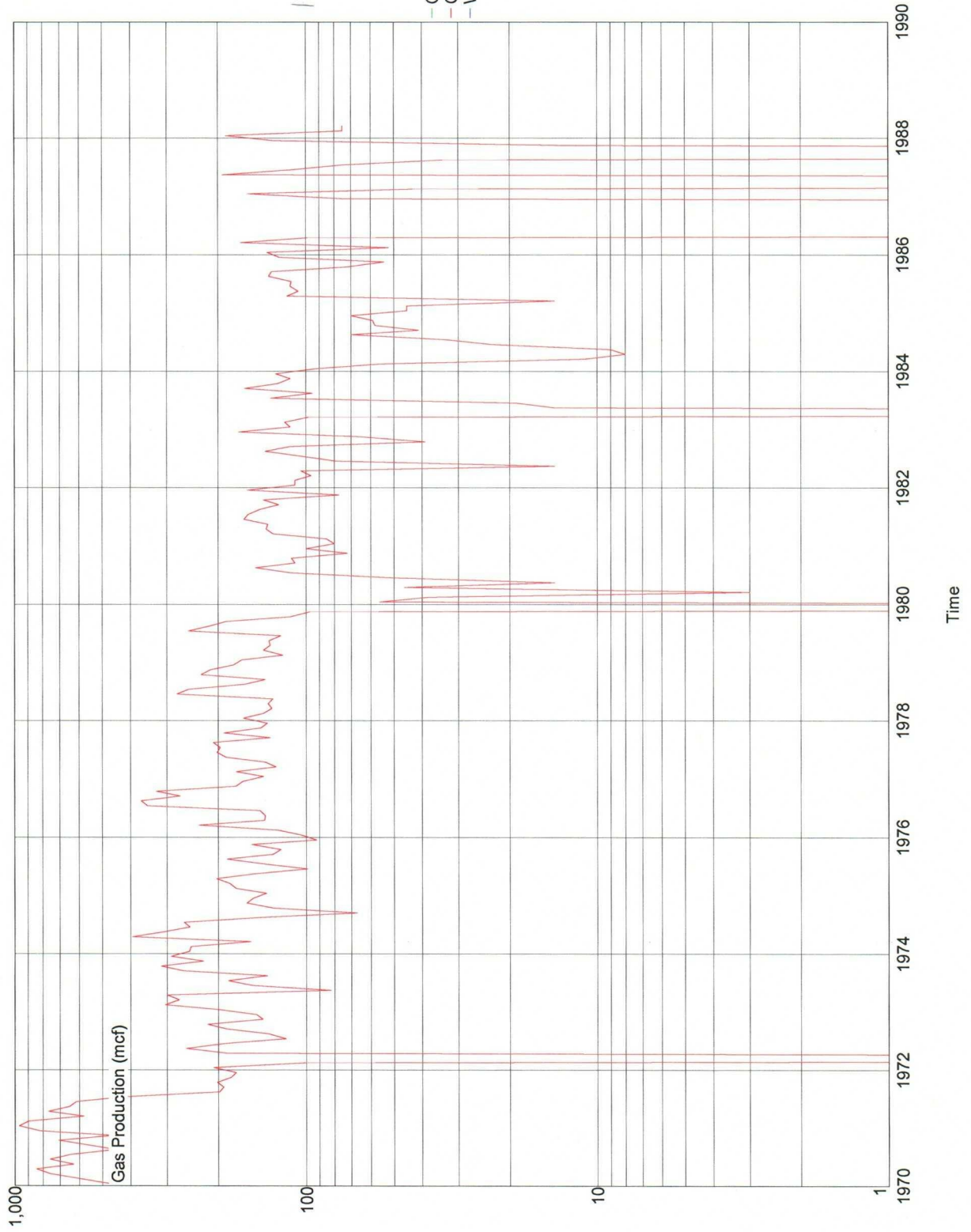






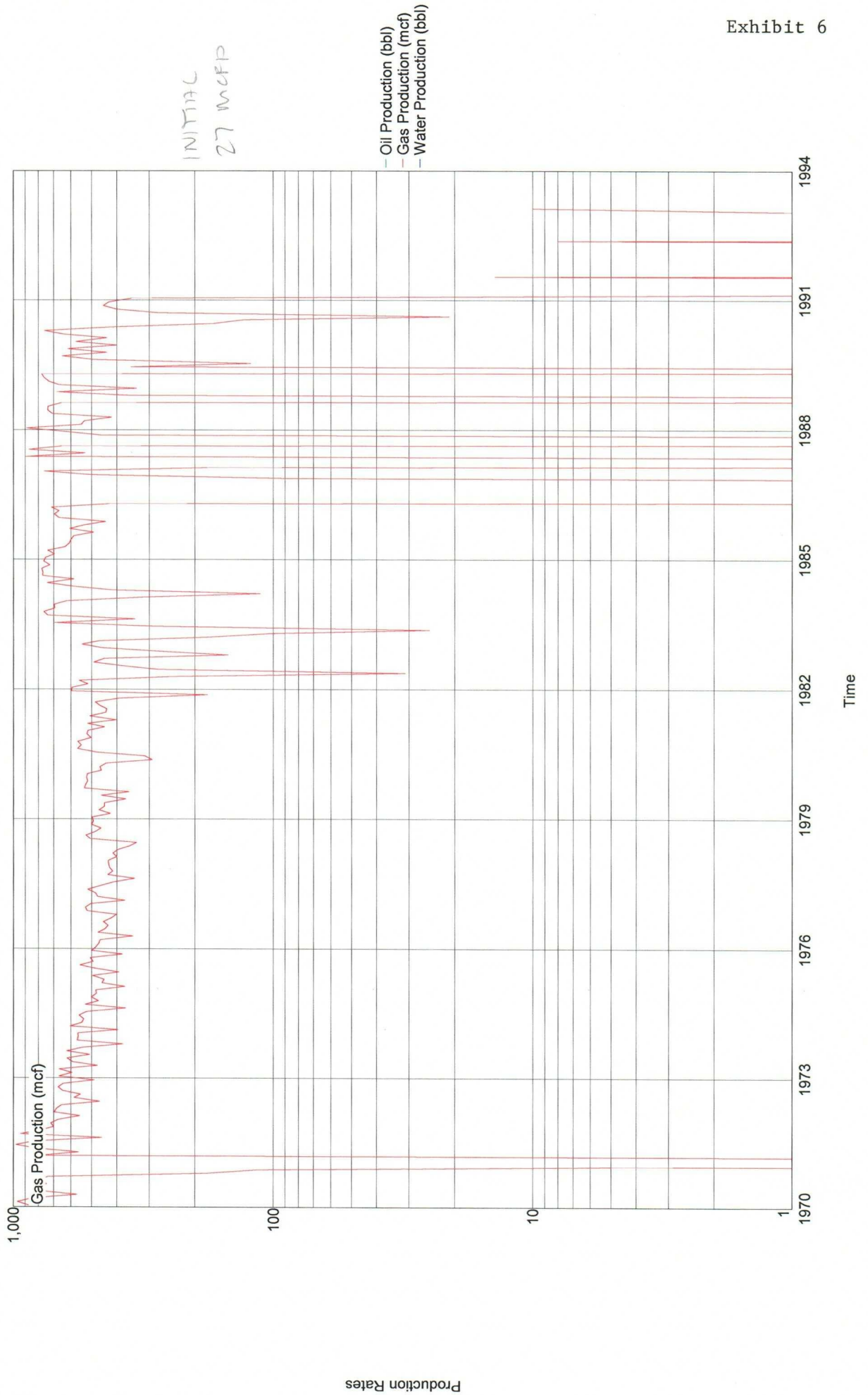
Lease Name: ABRAHAM FEDERAL Z  
County, State: RIO ARBA, NM  
Operator: EOG INCORPORATED  
Field: BLANCO SOUTH  
Reservoir: PICTURED CLIFFS  
Location: 30 24N 1W SE NW

ABRAHAM FEDERAL - BLANCO SOUTH



Lease Name: ABRAHAM FEDERAL 3  
County, State: RIO ARBA, NM  
Operator: KERNS OIL & GAS INCORPORATED  
Field: BLANCO SOUTH  
Reservoir: PICTURED CLIFFS  
Location: 24 24N 2W SW SE

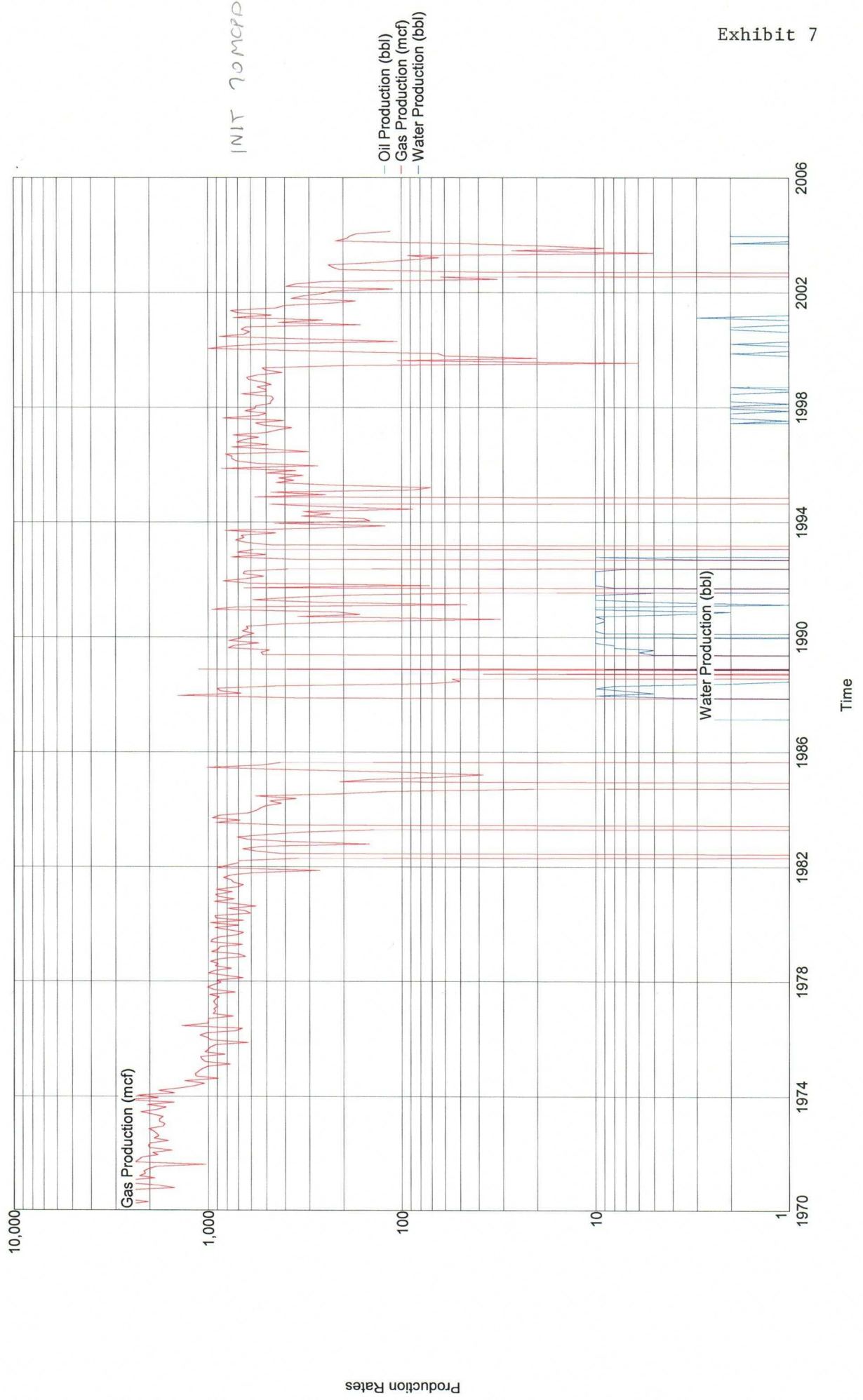
ABRAHAM FEDERAL - BLANCO SOUTH



COOKIE DOUGLAS  
30 MCFD

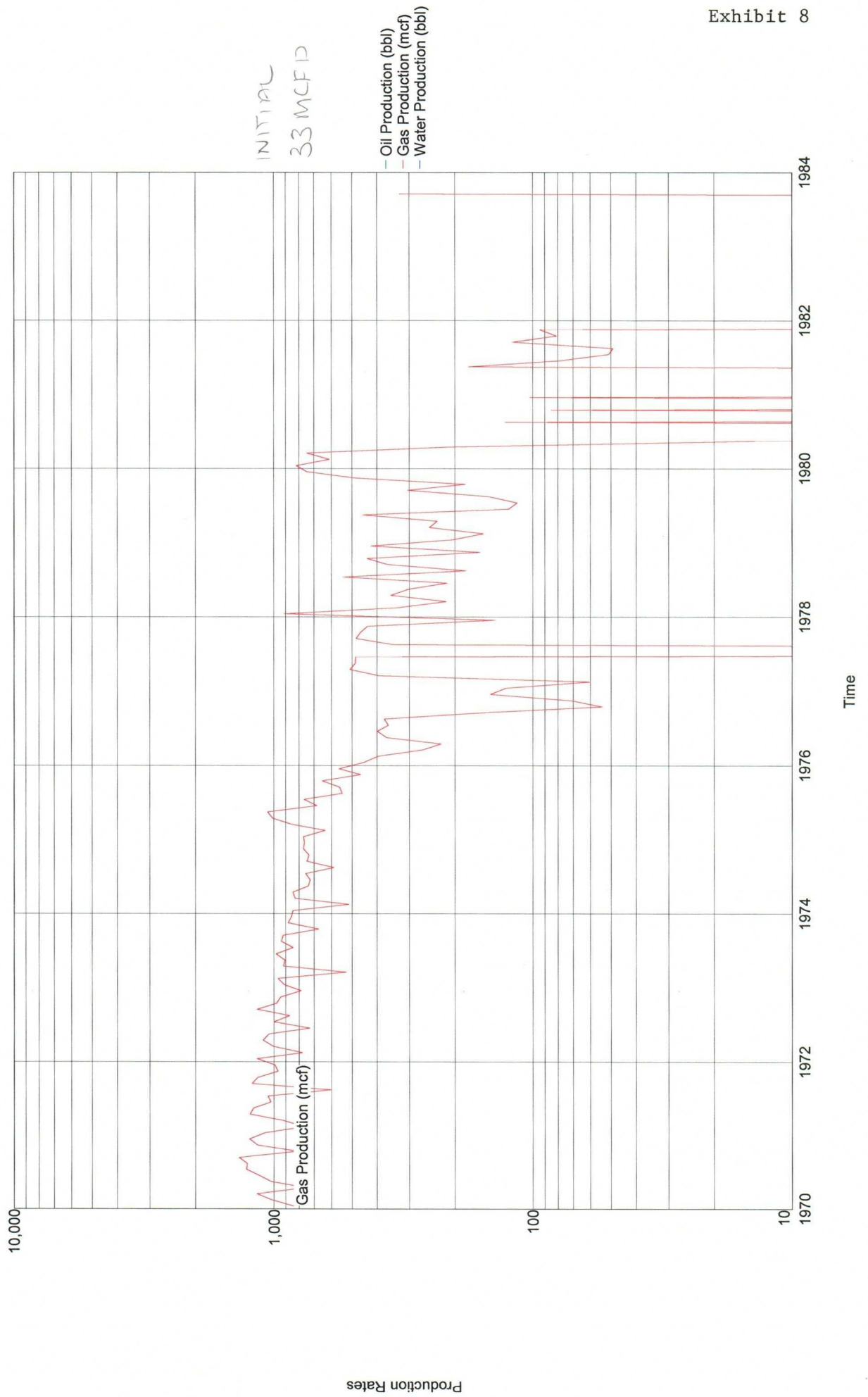
Lease Name: ANDERSON A1 PC  
County, State: RIO ARBA, NM  
Operator: DUGAN PRODUCTION CORPORATION  
Field: BLANCO SOUTH  
Reservoir: PICTURED CLIFFS  
Location: 25 24N 2W SE NW NE

ANDERSON A1 - BLANCO SOUTH



Lease Name: SUNICO FEDERAL 17  
County, State: RIO ARBA, NM  
Operator: FUNDINGSLAND E L  
Field: BLANCO SOUTH  
Reservoir: PICTURED CLIFFS  
Location: 23 24N 2W NE SW

SUNICO FEDERAL - BLANCO SOUTH





Lease Name: SUNICO FEDERAL 19  
 County, State: RIO ARBA, NM  
 Operator: RIO CHAMA PETROLEUM INCORPORATED  
 Field: BLANCO SOUTH  
 Reservoir: PICTURED CLIFFS  
 Location: 26 24N 2W NE SE

SUNICO FEDERAL - BLANCO SOUTH

