

- 67D

EXXON COMPANY, U.S.A.

POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

May 16, 1988

Downhole Commingling
Simultaneous Dedication
N. G. Penrose Well No. 1
Unit B, Section 13, T22S, R37E
Lea County, New Mexico

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

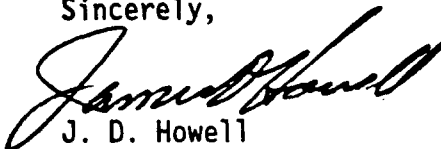
Attention: Mr. David R. Catanach

Exxon Corporation requests an exception to New Mexico Oil Conservation Division Rule 303-A to permit downhole commingling of production from the Blinebry Oil & Gas, Drinkard and Tubb Oil & Gas Pools in the captioned wellbore. Since we expect the Tubb Oil & Gas Pool completion to be gas, we also request simultaneous dedication of a 160 acre gas proration unit in the northeast quarter of Section 13 to N.G. Penrose Wells 1, 2 and 4. Please set this matter for consideration at the June 8, 1988 examiner hearing.

Well No. 1 is currently a marginal multiple completion in the Blinebry and Tubb. The Blinebry last tested 8 mcfgpd, but has not produced since 1977. The Tubb last tested 17 mcfgpd and appears to be loading with condensate. Exxon proposes to pull the current dual production equipment, add the Drinkard and install artificial lift to produce the remaining reserves in all three zones. Since separate testing of the zones before commingling would make the proposal prohibitively expensive, we ask that no such requirement be imposed.

A completed NMOCD Form C-102 for the Tubb is attached, as is the data described in Rule 303 (C)(2). All offset operators have been notified by copy of this letter and its attachments.

Sincerely,


J. D. Howell

JDH:jr
Attachments

Certified Mail - w/attachments

c: Mr. James Bruce
Offset Operators
Mr. Jerry Sexton, NMOCD, Hobbs, NM
2 copies to addressee

Exxon Corporation
Exhibit No. 2A
Cases 9398 & 9399
June 8, 1988 docket

OFFSET OPERATORS TO
EXXON'S N. G. PENROSE LEASE

Mabee Petroleum Corp.
400 W. Illinois, Ste. 1500
Midland, Texas 79701

Zachary Oil Operating Co.
1212 Commerce Bldg.
Fort Worth, Texas 76102

Marathon Oil Company
Box 522
125 W. Missouri St.
Midland, Texas 79702

Fina Oil & Chemical Company
6 Desta Drive
Midland, Texas 79705

Texaco Producing, Inc.
Box 3109
500 N. Lorraine
Midland, Texas 79701

Sun Exploration & Production Co.
Box 1861
Midland, Texas 79702

Sohio Petroleum Company
10 Desta Drive, Ste. 600 West
Midland, Texas 79705

J. H. Hendrix Corp.
223 W. Wall
525 Midland Tower Bldg.
Midland, Texas 79701

Exxon Lse. No. 53159 NEW MEXICO OIL CONSERVATION COMMISSION
State Lse. No. _____ WELL LOCATION AND ACREAGE DEDICATION PLAT
Federal Lse. No. _____ All distances must be from the outer boundaries of the Section.

Form C-102
Supersedes C-128
Effective 1-1-65

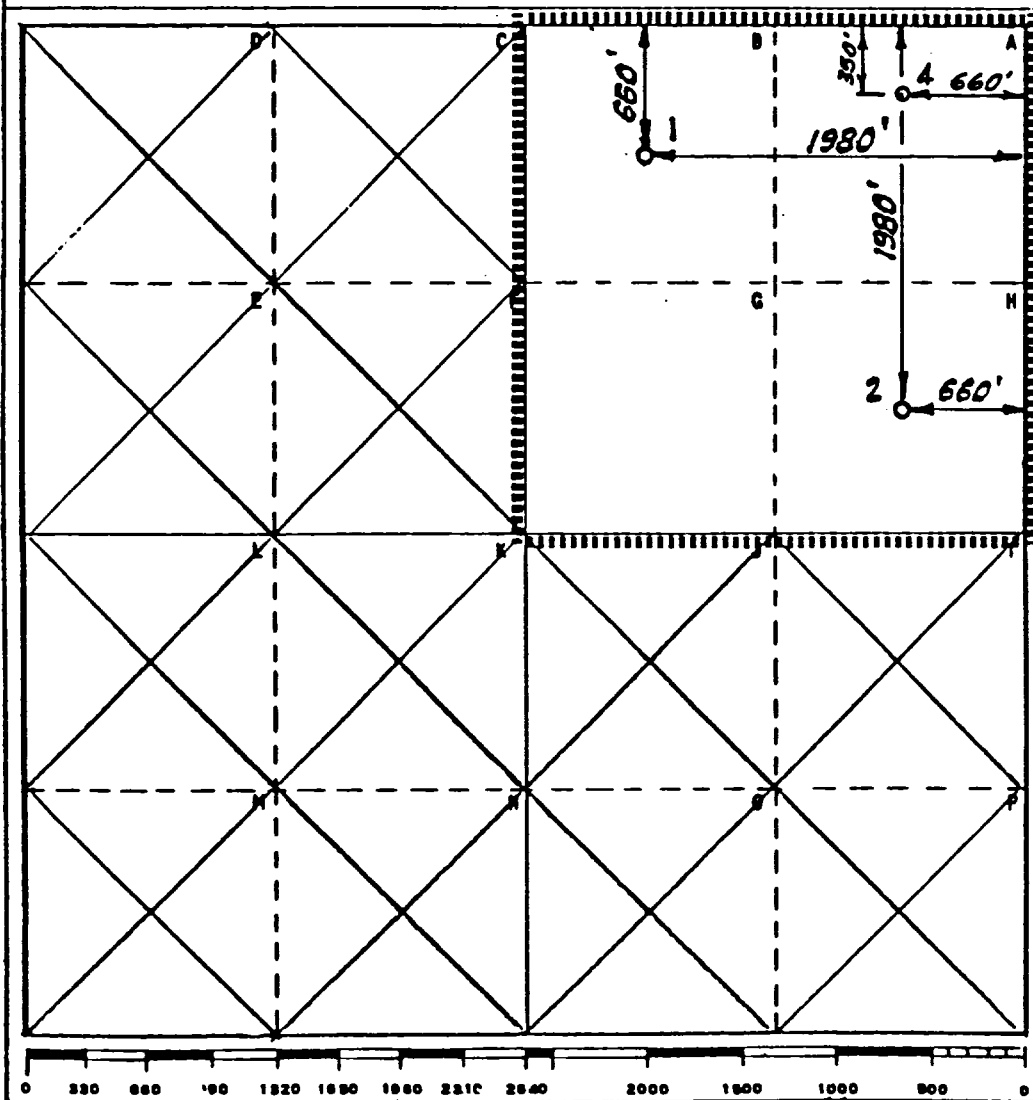
Operator Exxon Corporation			Lease N. G. Penrose		Well No. 1
Unit Letter B	Section 13	Township 22 South	Range 37 East	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 1,980 feet from the East line					
Ground Level Elev: 3,349' DF	Producing Formation Tubb		Pool Tubb Oil & Gas		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.

Name

Position

Division Staff Engineer

Company Exxon Corporation

Box 1600 Midland, Texas

Date

5/16/88

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.

Date Surveyed

3-4-75

Registered Professional Engineer and/or Land Surveyor

H. S. Heston

Certificate No.

1382

Attachment 2
N. G. Penrose Well No. 1
Downhole Commingling - Data Required

To obtain approval for downhole commingling, we have enclosed the following data pursuant to Rule 303 (C) (2) (a through j):

1. Exxon's name and address:

Exxon Corporation
P. O. Box 1600
Midland, TX 79702

2. Lease name, well number, well location, and name of pools to be commingled:

N. G. Penrose Well No. 1, Unit B, Section 13, T-22-S, R37-E, Lea County, New Mexico. Pools to be commingled: Blinebry Oil & Gas, Drinkard, and Tubb Oil & Gas.

3. A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases:

Attached.

4. A 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone:

Tests for the Blinebry and Tubb on Form C-116 are attached. The Drinkard has not yet been perforated. Expected Drinkard production is 3.5 BOPD and 68.3 mcfpd.

5. A production decline curve for zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes:

Decline curves for the Blinebry and Tubb zones are attached. Note that the Blinebry has not produced since 1977. Test data indicates that this zone is capable of producing 8 mcfpd. Allocations shown in Item 9 are based on actual production where available and appropriate or on 1986 average per well production within the immediate area.

6. A current bottom hole pressure for each zone capable of flowing:

The well currently flows small amounts of gas from the Tubb but appears to be logged up with condensate and most probably will require artificial lift to properly produce. Measured shut-in bottomhole pressure is 487 psia for the Tubb, 488 psia for the Blinebry (estimated from static fluid level in the N. G. Penrose #1) and 1416 psia for the Drinkard (estimated from the static fluid level in the N.G. Penrose #3). When adjusted to a common average datum of 2776 feet subsea, the Blinebry pressure is 668

psia, the Tubb pressure is 474 psia, and the Drinkard pressure is 1246 psia. Although the lowest pressured zone is less than 50% of the pressure in the highest pressured zone, no crossflow will occur since the fluids will be artificially lifted.

7. A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the wellbore:

Produced fluids are already surface commingled with no compatibility problems.

8. A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams:

All of the crude and condensate currently produced from the Blinebry Oil & Gas, Tubb Oil and Gas, Drinkard and Granite Wash pools on this lease is already being surface commingled into one common stock tank, and sold as a mixture. Although unrelated to downhole commingling, increased gas production rates expected from artificial lifting the fluids may disqualify these completions from stripper gas classification.

9. A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such a formula:

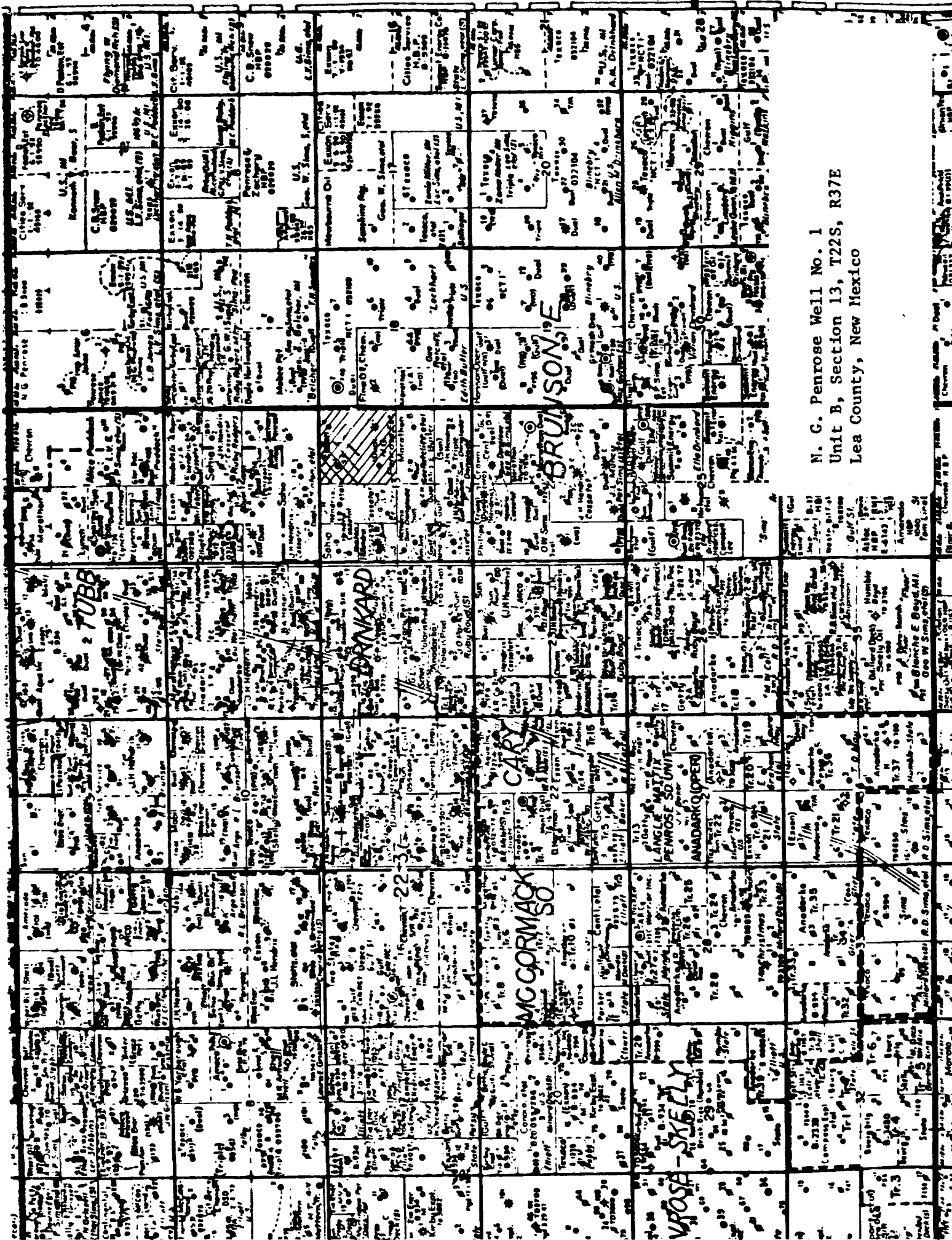
The following allocation percentages are suggested based upon the ratio of production from each zone:

	Expected Oil Production		Expected Gas Production	
	Oil (BOPD)		Gas (MCFPD)	
Blinebry Oil & Gas	4.6	(52%)	84.9	(41%)
Drinkard	3.5	(39%)	68.3	(33%)
Tubb Oil & Gas	0.8	(9%)	54.8	(26%)
Commingled Total	8.9	(100%)	208.0	(100%)

10. A statement that all offset operators and, in case of a well on Federal land, the United States Geological Survey, has been notified in writing of the proposed commingling:

By copy of this letter, we are notifying the offset operators of this proposed commingling.

11. In addition, working interest and royalty interest ownership in all zones are the same.



N. G. Penrose Well No. 1
Unit B, Section 13, T22S, R37E
Lea County, New Mexico

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2000
SANTA FE, NEW MEXICO 87501

Form G-116
Revised 10-1-78

GAS-OIL RATIO TESTS TEST PERIOD - JULY, AUG. SEPT.

Operator Exxon Corporation		Pool BLINEBRY OIL & GAS		County LEA									
Address P O Box 1600 Midland, Texas 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BOE
		U	S	T						WATER BELE.	BRAY. OIL	ON. BOLE.	
N.G. PENROSE	1	B	13	22	37	9/16/87 F			24	2	2	8	-

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top well allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowable when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 14.73 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in bars of tubing pressure for any well producing through casing.

Don't original and one copy of this report to the District Office of the New Mexico Oil Conservation Division in accordance with Rule 201 and appropriate pool rules.

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

Charles J. Douglass
(Signature)
Mr. Staff J. C. Cest
(Signature)
10-22-87
(Date)

GAS-OIL RATIO TESTS TEST PERIOD - AUG. SEPT. OCT.

Operator Exxon Corporation		Pool TUBB OIL & GAS	TYPE OF TEST - (X)		Completion <input type="checkbox"/>		Specified <input type="checkbox"/>				
Address P O Box 1600 Midland, Texas 79702		County LEA	DATE OF TEST	CHOKE SIZE	TSG. PRESS.	DAILY ALLOW. ABLE	WATER IN PRODUCTION	PROD. DURING TEST	GAS - OIL RATIO CU.FT./BB		
LEASE NAME	WELL NO.	LOCATION									
		U	S	T	R						
NEW MEXICO 'V' STATE	11	K	10	21	37	10/1/87	F	24	5	28	5600
	5	M	10	21	37	10/11/87	F		0	333	-
	20	E	2	22	37	8/5/87	F		0	5	-
	13	B	2	22	37	10/28/87	F		0	63	-
	23	P	2	22	37	10/28/87	F		0	243	-
* N.G. PENROSE	1	B	13	22	37	10/1/87	F		0	17	-
	2	H	13	22	37	10/28/87	F		0	50	-
TUBB GAS. COM.	1	O	10	21	37	10/19/87	F		0	38	-

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top well allowable for the pool in which well is located by more than 35 percent. Operator is encouraged to take advantage of this 35 percent tolerance in order that well can be assigned increased allowable when authorized by the Division.

Gas volume must be reported in MCF measured at a pressure base of 14.733 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Keep original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 30) and appropriate pool rules.

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

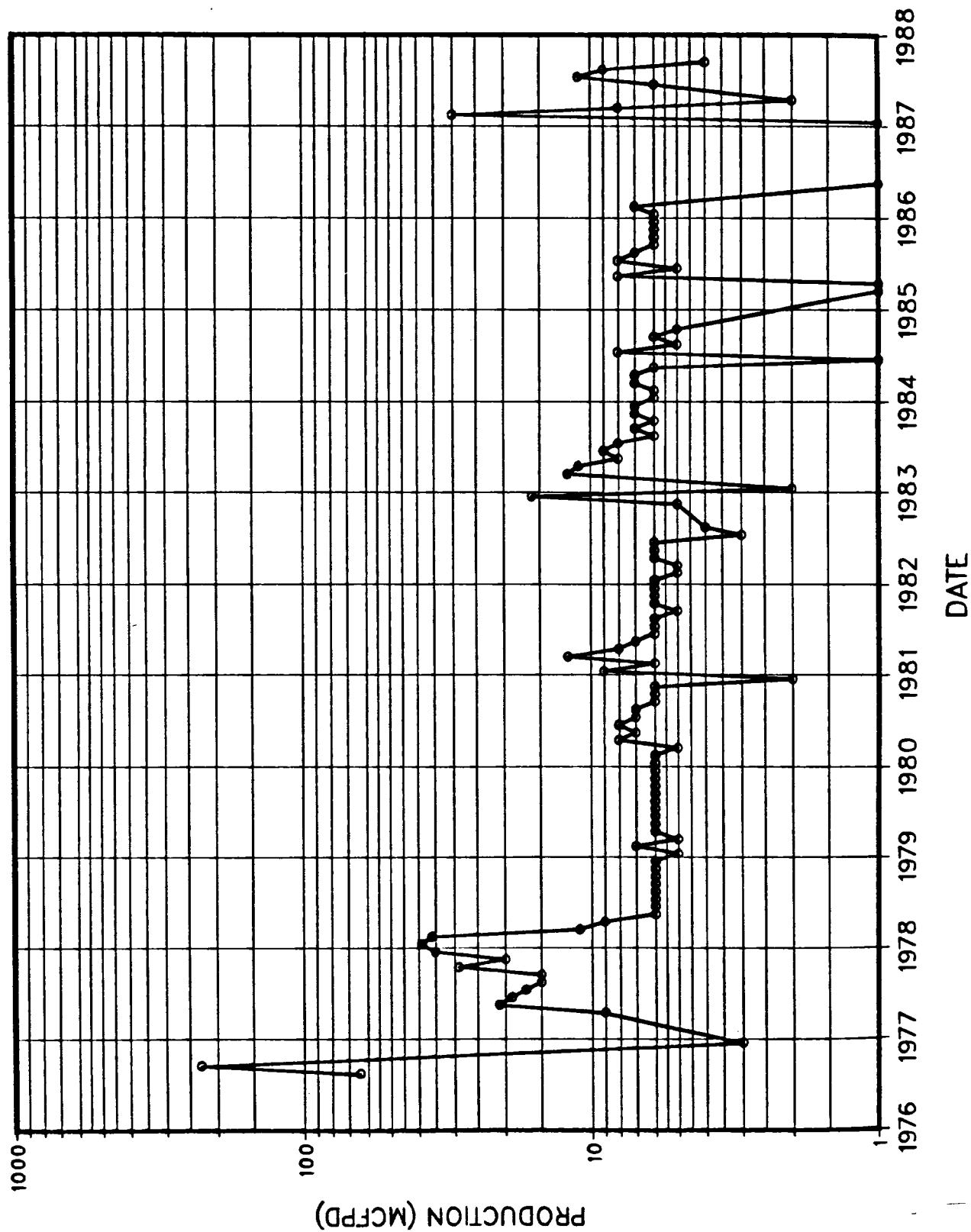
Antonia L. Dougherty
(Signature)

Dr. Staff Officer Post
Title

11-3-87

915/686-4491
(Phone)

N G PENROSE #1 TUBB PRODUCTION



N G PENROSE #1 BLINEBRY PRODUCTION

