

Getty

Getty Oil Company | P.O. Box 730, Hobbs, New Mexico 88240

(505) 397-3571

Central Exploration and Production Division

August 31, 1984

OIL CONSERVATION DIVISION

Energy & Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

SEP - 7 1984

RECEIVED

ATTENTION: MR. JOE D. RAMEY

RE: APPLICATION FOR STATEWIDE
RULE NO. 303-C - DOWNHOLE
COMMINGLE PRODUCTION TUBB-
DRINKARD AND FUSSelman
A.B. COATES "D" NO. 2, UNIT
N, SECTION 24, T-25S, R-37E
LEA COUNTY, NEW MEXICO

Gentlemen:

Getty Oil Company respectfully requests administrative approval to downhole commingle Tubb-Drinkard and the Fusselman production in A.B. Coates "D" No. 2 which is located 660' FSL and 1650' FWL Unit K, Section 24, T-25S, R-37E, in Lea County, New Mexico.

The Justis Tubb-Drinkard, which is perforated 5870-5935', last tested on 8/20/84 5 BO, 78 BW and 442 MCF in 24 hours. The Justis Fusselman Zone, which is perforated 6656-6678', last tested on 9/1/82 4 BO, 0 BW and 10 MCF in 24 hours. The Fusselman interval was shut in (October, 1982) due to the well's inability to flow.

The following facts are submitted in support of the above request which is an extension of Statewide Rule 303, Paragraph "C".

1. Both zones are classified as oil zones and both zones require artificial lift to produce.
2. Total oil production from both zones is expected to be less than the 40 BOPD which is the maximum allowable for this depth bracket.
3. Sufficient artificial lift equipment exist on the well to lift the commingled production.
4. The fluids from each zone are compatible with fluids from each other. The zones are multiply completed in various combinations in this and other wells on the lease and no fluid incompatibility between the fluids has been found.

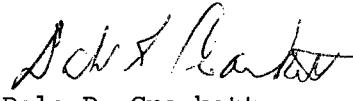
August 31, 1984

5. The total value of crude will be increased by commingling in that the Fusselman Zone will be returned to production from a shut-in status.
6. Ownership of both zones is common, including working and royalty interest.
7. Commingling will not jeopardize future secondary recovery operations, as no secondary operations are being conducted at the present time.
8. Attached are decline curves for each of the zones, along with current productivity tests (C-116) for the Tubb-Drinkard and Fusselman Zones.
9. The BHP of the zones are low. The Fusselman is shut-in below a packer with an estimated BHP of 370.5 psia and the Drinkard BHP was measured at 328.2 psia. (See Exhibits I and II)
10. The produced water from these and all other zones on the lease are handled through one system. There have been no incompatibility problems. The zones have been in communication when these and other wells were pulled and no detrimental effects have ever been found on this eight multi-zone lease.
11. The price of the Fusselman oil will be reduced 27.9 cents per barrel. Production will increase 4 BO or \$120 per day, the expected production from the NIO Fusselman Zone.
12. All offset operators and the Bureau of Land Management have been furnished copies of this request.

Certain economic considerations make the request for downhole commingling the only viable solution to recover the remaining Fusselman reserves. The DHC will ultimately reduce the excessive corrosion problems encountered in dual completions and thus reduce the operating expense.

Very truly yours,

GETTY OIL COMPANY


Dale R. Crockett
Area Superintendent

JIM
JIM/cb

Enc.

WELL DIAGRAM

A.B. COATES "D" NO. 2PROPOSED

13 3/8" csg. set @ 538' w/550 sx
cement circ.

PRESENT

9 5/8" csg set @ 3315' w/1500 sx DV @ 857'
no circ.- first stage; circ.- second stage

Tubb 5779-5819' selectively 12 holes (1-24-71) 5000
gal. acid

2 3/8"
set @
±5940'

Drinkard @ 5870-5936' 4 spf (8-24-58)
Fraced 1000 gal. acid 20,000 gal. oil and
20,000 bls sand (8-24-58)

2 3/8" tbg set
@ 6450' in
Baker Model
D packer

Propose that 2 3/8" tbg set @ ± 6670'

Fusselman

Silurian 6656, 57, 58, 62, 63, 64, 66, 73, 74, 75, 76, 77, 78
(1-29-71) 1500 gal. acid

CIBP @ 5710' cement to 6700'

Fusselman 6730-32', 6740.5', 6751-57', 6760-75'
(12-2-68)
Dec. 2, 1968 squeezed and drilled out to 6790'

Fusselman 6822-6839' & 6842-49' (8-24-64)

CIBP @ 6935' w/cmt to 6928'

Fusselman 6862-6904' and 6940-70' (8-24-58)

7" 23#/ft N-80 & J-55 set @ 7005' w/800 sx
DV tool @ 5095' cement top by temp survey 40'
from surface

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-113
Proved 1-1-65

Permit		Well		County		Lea	
Getty Oil Company		Justis Rubber-Drinkard					
P.O. Box 730, Hobbs, New Mexico 88240				TYPE OF TEST - (X)		<input type="checkbox"/> Computation <input checked="" type="checkbox"/> Current <input type="checkbox"/>	
LEASE NAME	WELL NO.	LOCATION		DATE OF TEST	SCHEDULED <input type="checkbox"/>	PROC. CURING TEST	
	U S T R					GAS - C.I.L. RATIO C.U.F.T.V.B.E.L.	
A.B. Coates "D"	2 N 24 25S 37E			7/4/84 P	-	DAILY ALLOWABLE PRESS.	GAS M.C.F.
APPLICATION FOR DOWNHOLE COMMINGLING.							
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 unit 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 allowances when authorized by the Commission.							
Gas volumes must be reported in MCF measured at a pressure base of 15.03 psia and a temperature of 60° F. Specific gravity base will be 0.60.							
Report curing pressure in lieu of tubing pressure for any well producing through casing.							
Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 361 and appropriate pool rules.							

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

Dowell H. Steiner
Date R. Cricketts, Manager, Area Sup't.
August 31, 1984

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

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Permit No.	Pool	Justis Fusselman		County	Lea										
Address	P.O. Box 730, Hobbs, New Mexico 88240	Type of Test - (X)	Scheduled <input type="checkbox"/>	Completion <input type="checkbox"/>	Estimated <input checked="" type="checkbox"/>										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	T.B.G. PRESS.	DAILY ALLOWABLE	PROD. DURING TEST	GAS - OIL RATIO					
	U	S	T	R		GALLONS	PSI	hrs.	WATER OIL GALLS.	GAS M.C.P.					
A.B. Coates "D"	2	N	24	25S	37E	9/1/82	F	-	NA	24	0	36.9	4	10	250
<u>APPLICATION FOR DOWNHOLE COMMINGLING</u>															

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

During each ratio test, each well shall be produced at a rate not exceeding the top unit 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 acreage alternative when authorized by the Commission.

0.01. The vacuum must be recorded in N.C.F. measured at a pressure base of 13.625 p.sia and

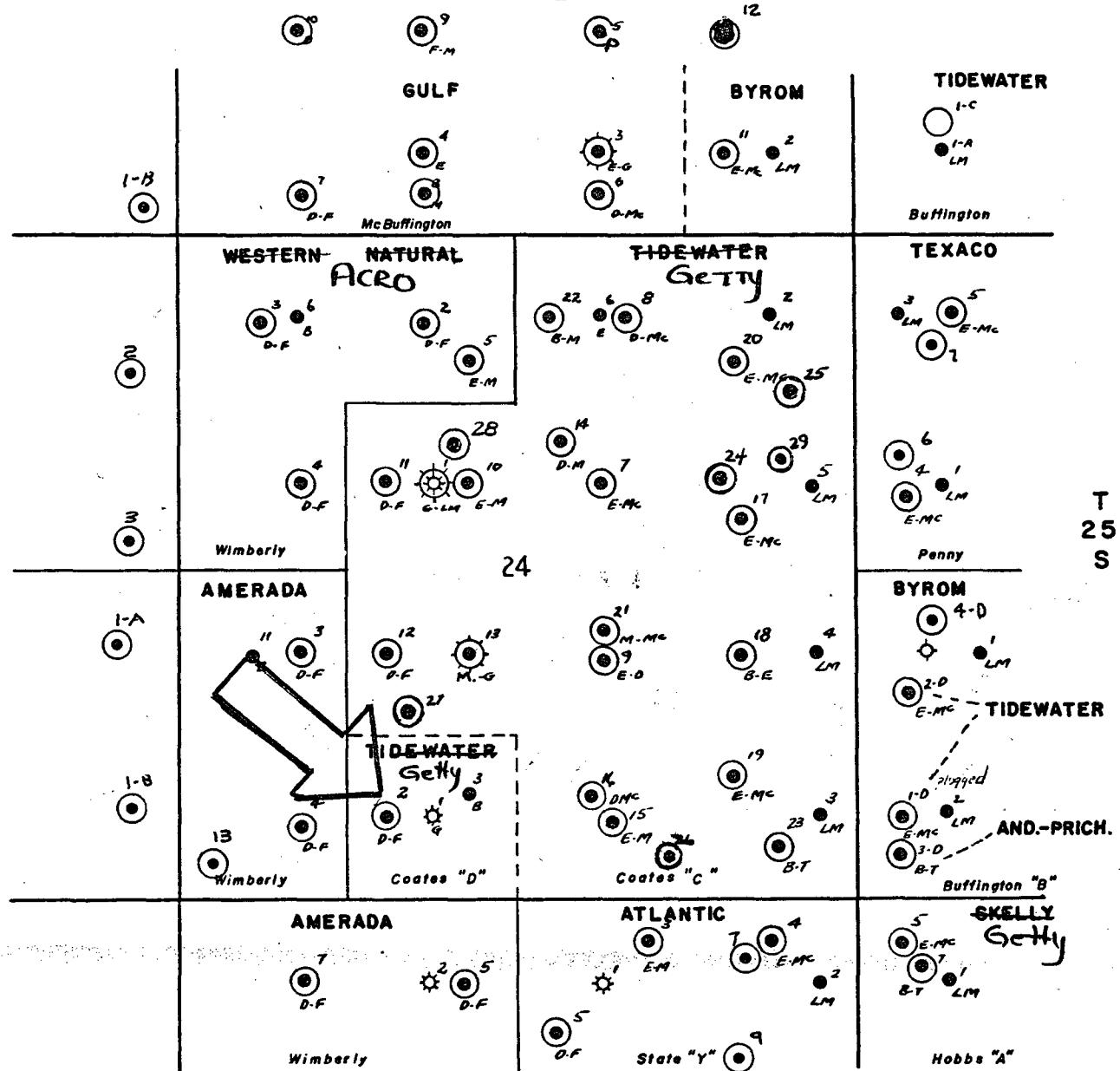
Report gasoline price rise
Well critical and one copy

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Jenny C. Hinman

August 31, 1984

R 37 E



LEA COUNTY
NEW MEXICO

EXHIBIT I

BENNETT-CATHEY WIRE LINE SERVICE



P. O. BOX 787

ARTESIA, NEW MEXICO 88210

Phone (505) 746-3281



BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR GETTY OIL COMPANY
LEASE A.B. COATS "C"
WELL NO. #18
POOL FORMATION TUBBS-DRINKARD
DATE 8-17-84 **TIME** 0919 HOUR
CO. MAN JIM MICKAS
STATUS SHUT IN **TEST DEPTH** 5871 FEET
TIME S.I. 0800 HOUR **LAST TEST DATE** 1ST TEST
 8-24-84 **BHP LAST TEST**
TUB. PRES. 38.2# **BHP CHANGE**
CAS. PRES. FLUID TOP 5215 FEET
DATUM PLANE WATER TOP
DATUM PSIA 315.2# **RUN BY** DAVID SPENCER
TEMP 107° **CLOCK #** B-3443
PRESSURE RANGE 5150 LBS.
ELEMENT NO. RPG3#22749

DEPTH	PSIA	LBS/100 FT.
0	38.2	
2000	41.2	.2
4000	44.2	.2
5365	116.2	5.3
5605	207.2	37.9
5871	315.2	40.6

TIME B.H.P. MEASURED 0919 HOUR.

LENGTH OF TIME WELL SHUT IN 73 HR 19 MIN.

PERFORATIONS FROM 5274 TO 5840 FEET.

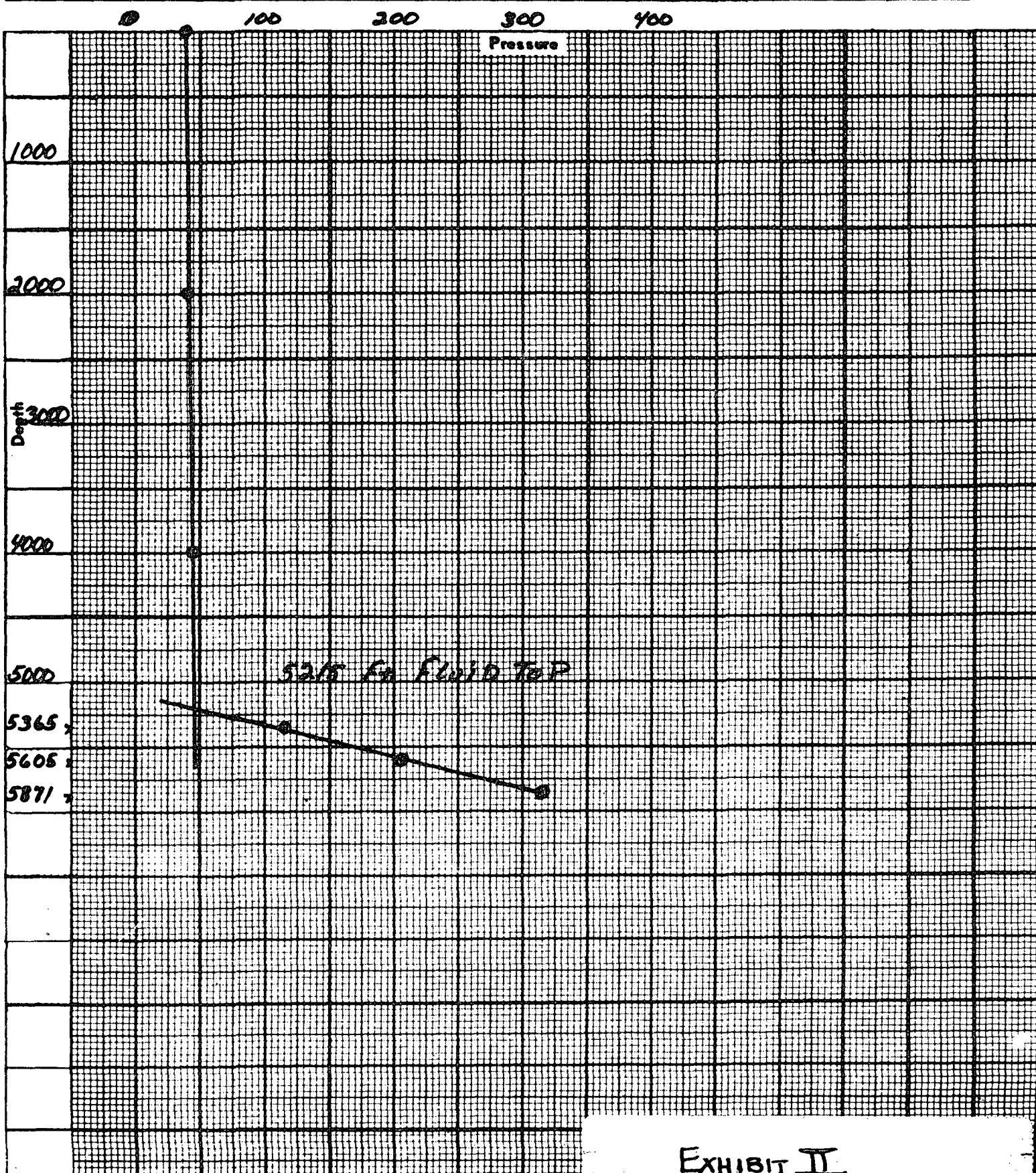


EXHIBIT II

EXHIBIT I
A.B. COATES "D" NO. 2
BOTTOM HOLE PRESSURE DETERMINATION

DRINKARD

The measured BHP in A.B. Coates "C" No. 18 (Drinkard) was 315.2 psia at 5871' the midpoint of the perforations. The established gradient is .406 psi/ft. Thus, correcting this BHP to the midpoint of the perforations (5903'), and using this same gradient in A.B. Coates "D" no. 2, the calculated BHP is as follows:

$$\text{BHP} = 315.2 \text{ psi} + 32' (.406) = 328.2 \text{ psia}$$

FUSSELMAN

The calculated BHP in A.B. Coates "C" No. 10 (Fusselman) was calculated from the following data after being shut-in for (4) days

TP 300#

Fluid Level 194' above the midpoint of perfs

Midpoint of perfs 6726'

Fluid gradient .4274 psi/ft

$$\text{BHP} = [(300 \text{ psi} + 194 (.4274)] + 13.2 = 396.1 \text{ psia}$$

Midpoint of the Fusselman perfs in A.B. Coates "D" No. 2 is 6667' which is 60' shallower than Well No. 10, therefore, the corrected BHP is as follows:

$$\text{BHP} = 396.1 \text{ psia} - 60 (.4274) = 370.5 \text{ psia}$$

COPIES TO:

U. S. Geological Survey
Carlsbad Resource Area
P. O. Box 1778
Carlsbad, New Mexico 88220

Amerada-Hess
Drawer "D"
Monument, New Mexico 88265

Atlantic Richfield
P. O. Box 1710
Hobbs, New Mexico 88240

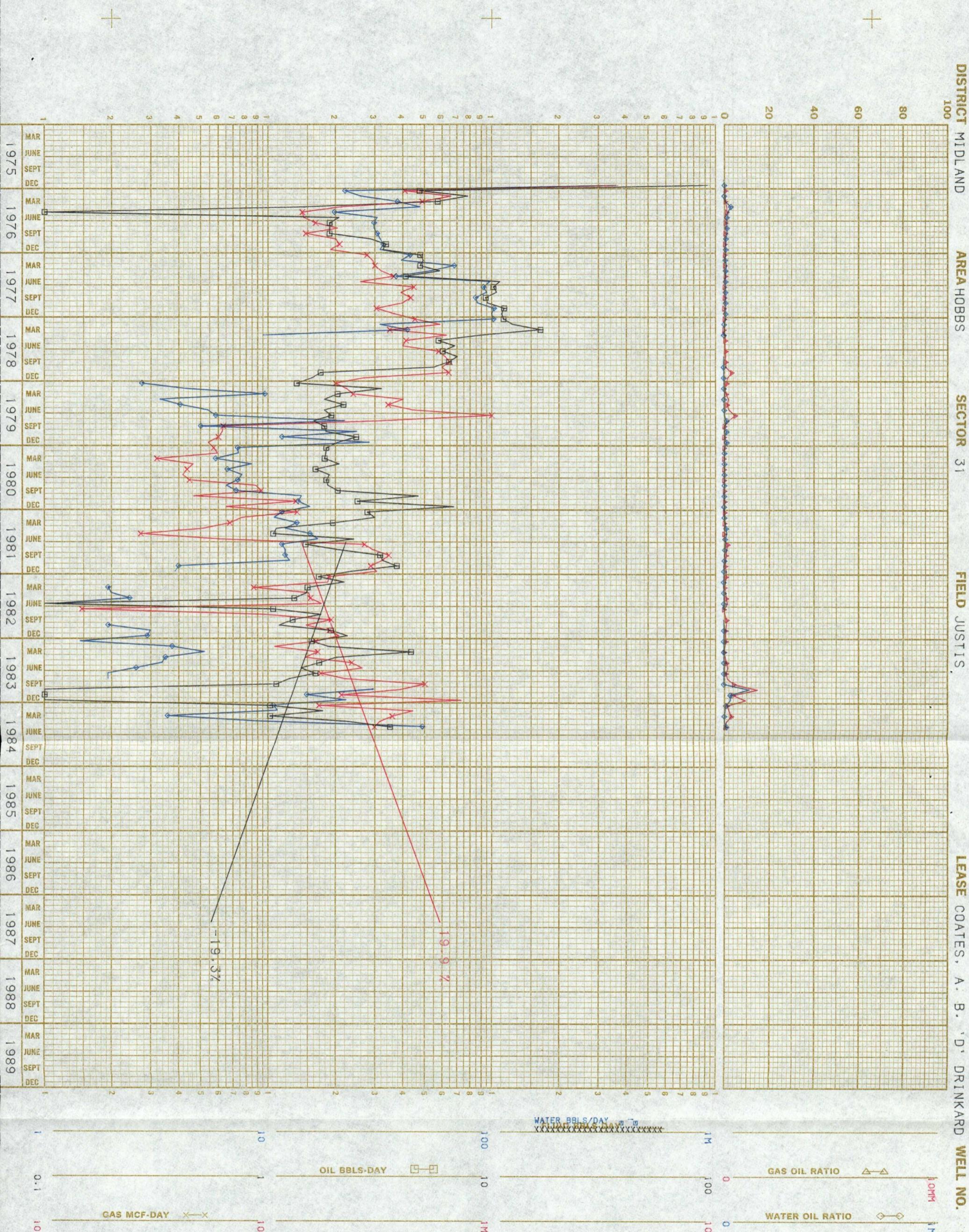
W. K. Byrom
P. O. Box 147
Hobbs, New Mexico 88240

✓ Texaco, Inc.
P. O. Box 728
Hobbs, New Mexico 88240

✓ Union of Texas
1300 Wilco Building
Midland, Texas 79701

✓ Gulf Oil Company
P. O. Box 670
Hobbs, New Mexico 88240

The above received one complete copy of the downhole commingling request.



DISTRICT MIDLAND

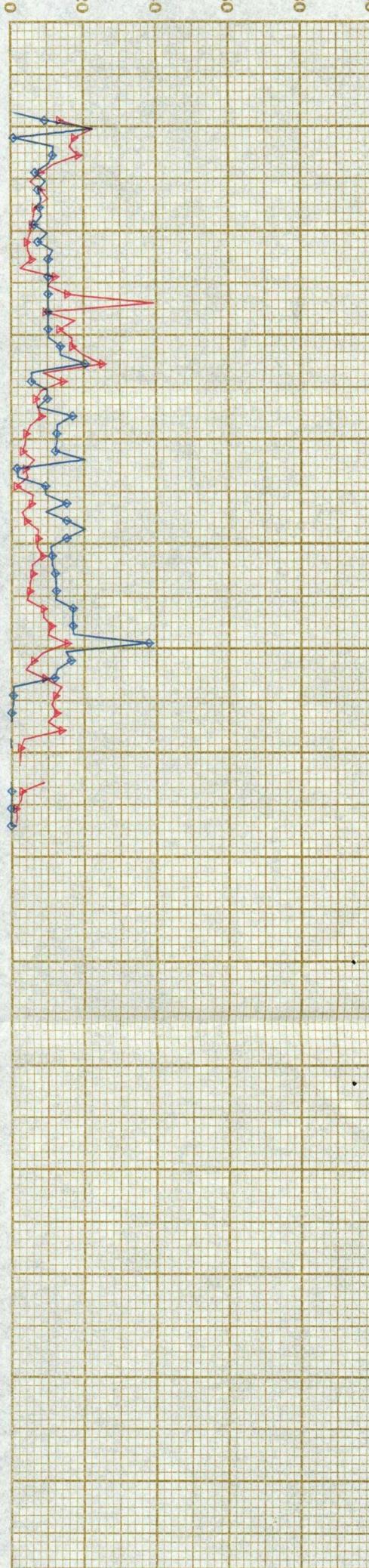
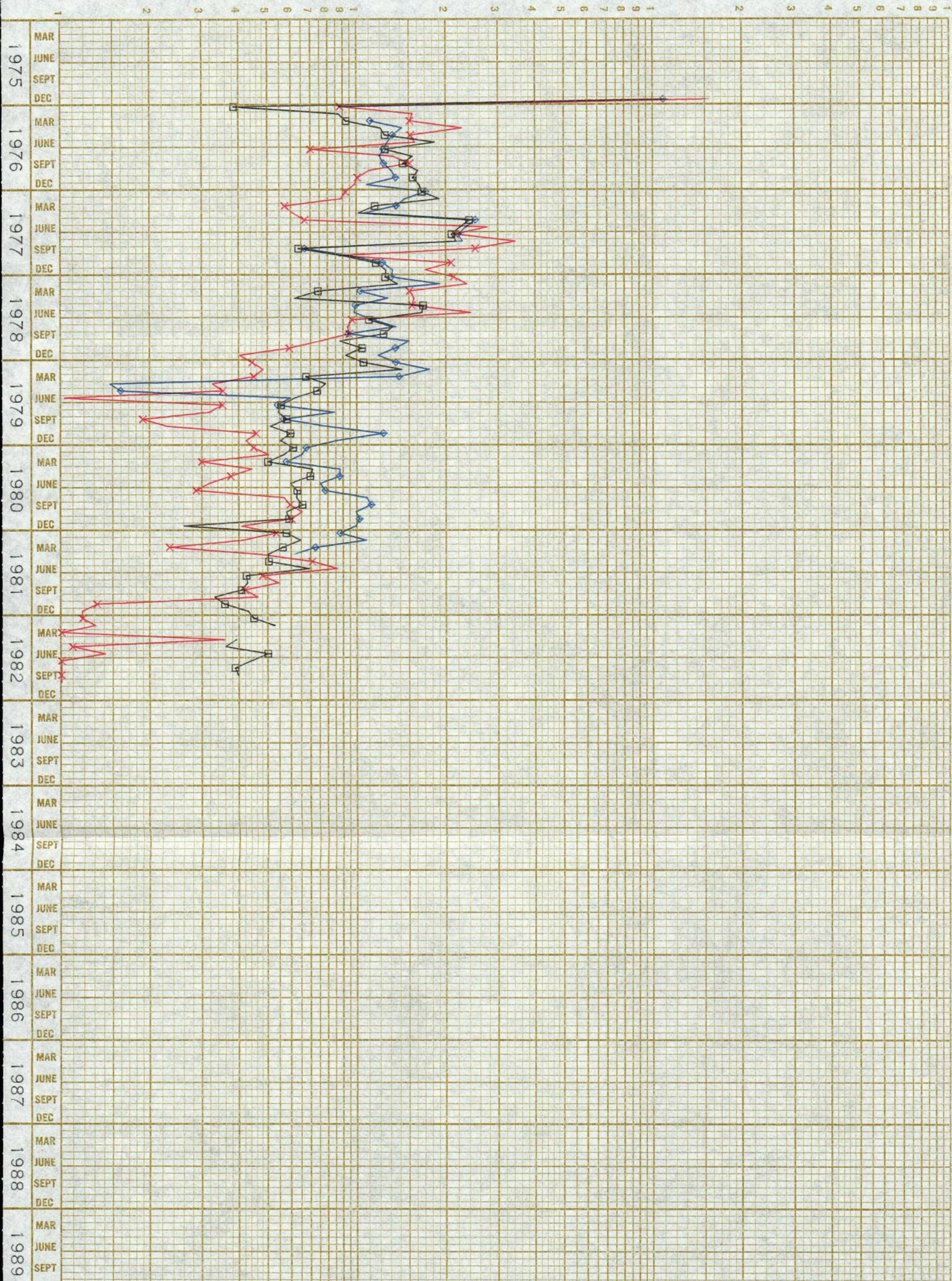
AREA HOBBS

SECTOR 31

FIELD JUSTIS.

LEASE COATES, A. B. 'D' FUSSELLMAN

WELL NO. 2



WATER BBLS/DAY

XXXXXX MAX XXXXXX

OIL BBLS-DAY

□ □

1M

100

100

1M

1M

100

100

1M

GAS OIL RATIO

△ △

100M

0

100M

WATER OIL RATIO

◇ ◇

0

100

GAS MCF-DAY

X-X

100

100

1M

100

1M



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

September 25, 1984

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 1880
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC X _____
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Getty Oil Co. A. B. Coates "D" No. 2-N 24-25-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc