

Gulf Energy and Minerals Company - U. S.

PRODUCTION DEPARTMENT
HOBBS AREA

C. D. Borland
AREA PRODUCTION MANAGER

February 9, 1976

P. O. Box 670
Hobbs, New Mexico 88240

Re: Nancy Stephens No. 2,
Unit E, Sec. 24-21S-37E,
Lea County, N. M.

Mr. Joe D. Ramey
N. M. Oil Conservation Commission
P. O. Box 2088
Santa Fe, N. M. 87501

Dear Sir:

Your administrative approval is requested for an exception to Rule 303-A to permit down-hole commingling of marginal production in the subject well. The Drinkard and Blinebry oil production on this lease are presently commingled in storage on the surface, under Amended Administrative Order No. PC-138. The same two pools are also presently down-hole commingled in the well bore in well No. 3 under Administrative Order No. DHC-147. There is no evidence of fluid incompatibility, and we do not expect any waste or reservoir damage due to down-hole commingling in the well bore. Ownership in the two pools is common and correlative rights will not be violated. Down-hole commingling will allow the recovery of additional hydrocarbons from this well. Should secondary recovery operations become practical in the future, the two zones could be separated at that time without damaging either reservoir.

The Drinkard zone is presently being produced by rod pump. The Blinebry zone flows; however, the well dies frequently and must be swabbed to maintain flow. If down-hole commingling is permitted, the existing pumping equipment will be utilized to lift the fluids from the two commingled zones.

Pertinent data regarding this application, as outlined in Rule 303-C, are attached for your consideration.

Yours very truly,


C. D. BORLAND

CRK:ec
Att'd.

cc: N. M. Oil Conservation Commission, Hobbs
C. F. Kalteyer, Midland
Offset Operators: Continental Oil Co., Mobil Oil Corp., Atlantic Richfield Co.



Nancy Stephens No. 2

1. Operator: Gulf Oil Corporation
P. O. Box 670
Hobbs, N. M. 88240
2. Lease and Well Number: Nancy Stephens No. 2
1980' FNL & 660' FWL
Sec. 24-21S-37E
Lea County, New Mexico
3. Pools Dualled: Blinebry Oil and Gas, Drinkard Oil
OCC Order No. MC-1305, April 15, 1963
4. Decline Curves: Attached.
5. Bottom Hole Pressure Data:

	<u>Datum</u>	<u>Pressure at Datum</u>
Blinebry Oil and Gas	-2400'	540 psi
Drinkard Oil	-3050'	500 psi (est.) *

* Drinkard estimate based on most recent available average BHP data within vicinity of this well.

6. Fluid Characteristics: Drinkard and Blinebry production are presently being commingled in the well bore in Well No. 3 (Administrative Order No. DHC-147). The same two pools are also being commingled on the surface on this lease (Amended Commingling Order No. PC-138). There is no evidence of incompatibility.

7. Value of Commingled Fluids:

	<u>BOPD</u>	<u>API Gvty. @ 60° F.</u>	<u>\$/Bbl.</u>	<u>Rev./Day</u>
Blinebry Oil and Gas	9	40.8	\$12.43	\$111.87
Drinkard Oil	3	39.0	12.41	<u>37.23</u>
				\$149.10
Commingled	12	40.3	12.43	\$149.16
Difference				+\$ 0.06

8. Current Tests: Blinebry Oil and Gas (2-5-76) flowed 9 BOPD, 0 BWPB, GOR 5111. Drinkard Oil (1-19-76) pumped 3 BOPD, 0 BWPB, GOR 2000.
9. All offset operators have been notified by copy of attached letter: Continental Oil Company, Mobil Oil Corporation, Atlantic Richfield Company.

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator		Pool		County											
Gulf Oil Corporation		Blinebry Oil and Gas		Lea											
Address		Box 670, Hobbs, N. M. 88240		Type of Test - (X)											
				Scheduled ☐ Special ☒											
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABL	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL
		U	S	T	R						WATER BELLS.	GRAV. OIL	OIL BELLS.	GAS M.C.F.	
Naomi Keenum	1	J	14	21	37	1-14-76	30/64"	80	10	24	1	36.4	8	27.0	3375
Nancy Stephens	2	E	24	21	37	2-5-76	29/64"	40	5	24	0	37.2	9	46.0	5111
Test To Apply for Down-Hole Comingling															

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 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

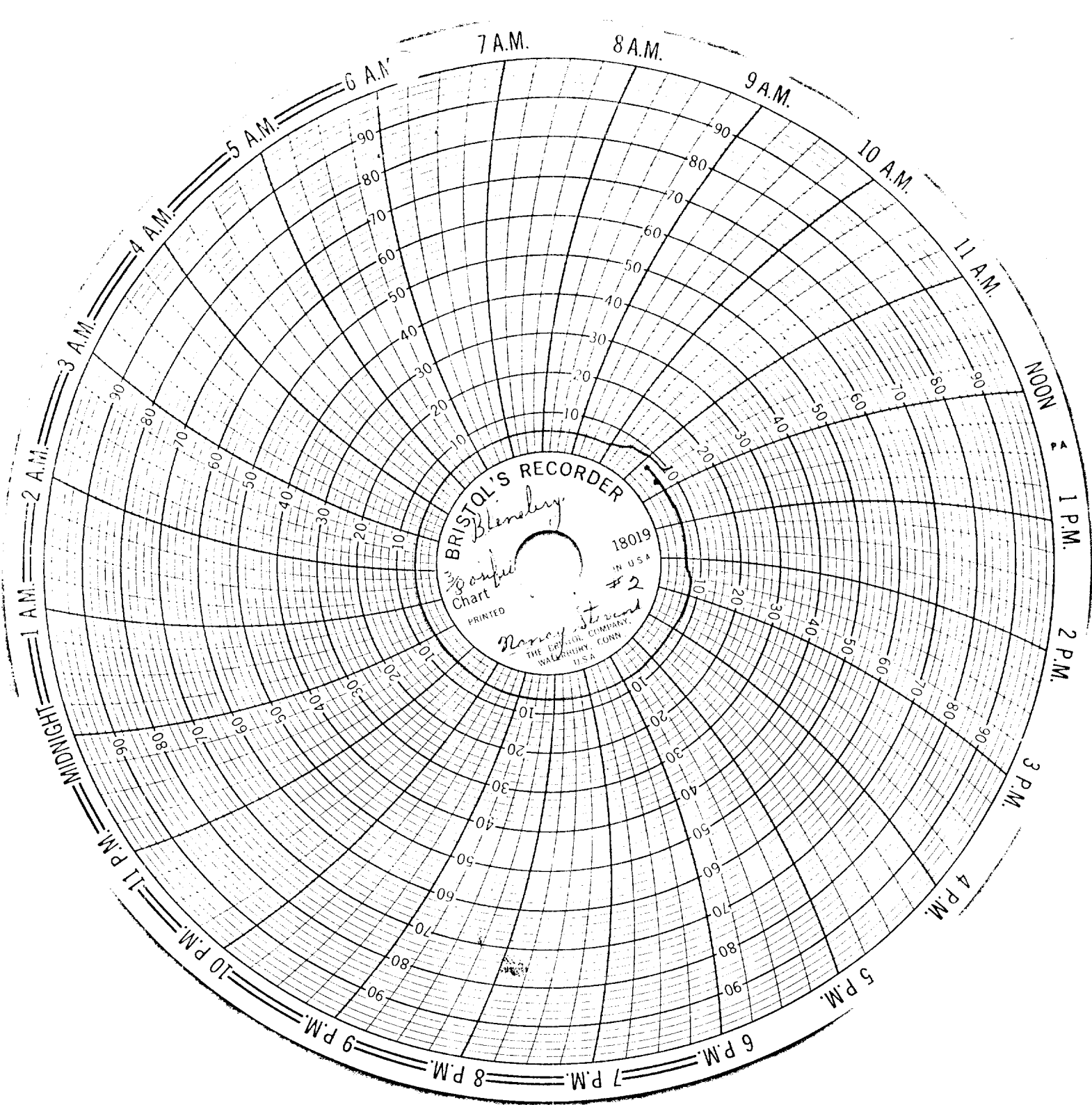
Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well: original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 101 and appropriate pool rules.

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

[Signature]
Well Tester (Signature)

February 10, 1976 (Date)



TYPE OF REPORT - (X)

NEW MEXICO OIL CONSERVATION COMMISSION

Form 2-124
Revised 11-65

Initial Completion

Special ☒

General Survey

RESERVOIR PRESSURE REPORT

Operator Gulf Oil Company

Pool

County

Address P. O. Box 670, Hobbs, New Mexico

Producing Formation

Blinberry

Oil Gradient

Water Gradient

Gas Gravity

Date

1-22-76

Oil (o)
Gas (g)

DATE TESTED

IN

SHUT-IN

BOMB TEST DATA

B.H. TEMP. ° F

OB. SERVED PRESS.

PROD. TEST (BBL'S./DAY)

LIQUID LEVEL

LIQUID GRADIENT PSI/FT.

WT. OF LIQUID COL. PSI

WT. OF GAS COL. PSI

CSG. PRESS.

PRESS. AT DATUM

LEASE

WELL NO.

LOCATION

ELEV.

DATE TESTED

IN

SHUT-IN

BOMB TEST DATA

B.H. TEMP. ° F

OB. SERVED PRESS.

PROD. TEST (BBL'S./DAY)

LIQUID LEVEL

LIQUID GRADIENT PSI/FT.

WT. OF LIQUID COL. PSI

WT. OF GAS COL. PSI

CSG. PRESS.

PRESS. AT DATUM

Stephens

2

E

24 21 37

3414

1-22-76

24

5814

75°

540

540

All depths plus or minus one level; all pressures psi; Bomb shall be calibrated frequently enough against a dead weight tester to ensure an accuracy of one per cent; gas gravity shall be determined by analysis; liquid level shall be feet above datum plane. see rule 302.

Well shall be produced at least 24 hours prior to shutting in for sonic test.

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

Handwritten Signature

Well Tester-Journal Services, Inc.

1-22-76

N. Y. STEPHENS #2

BLINBRY Pool

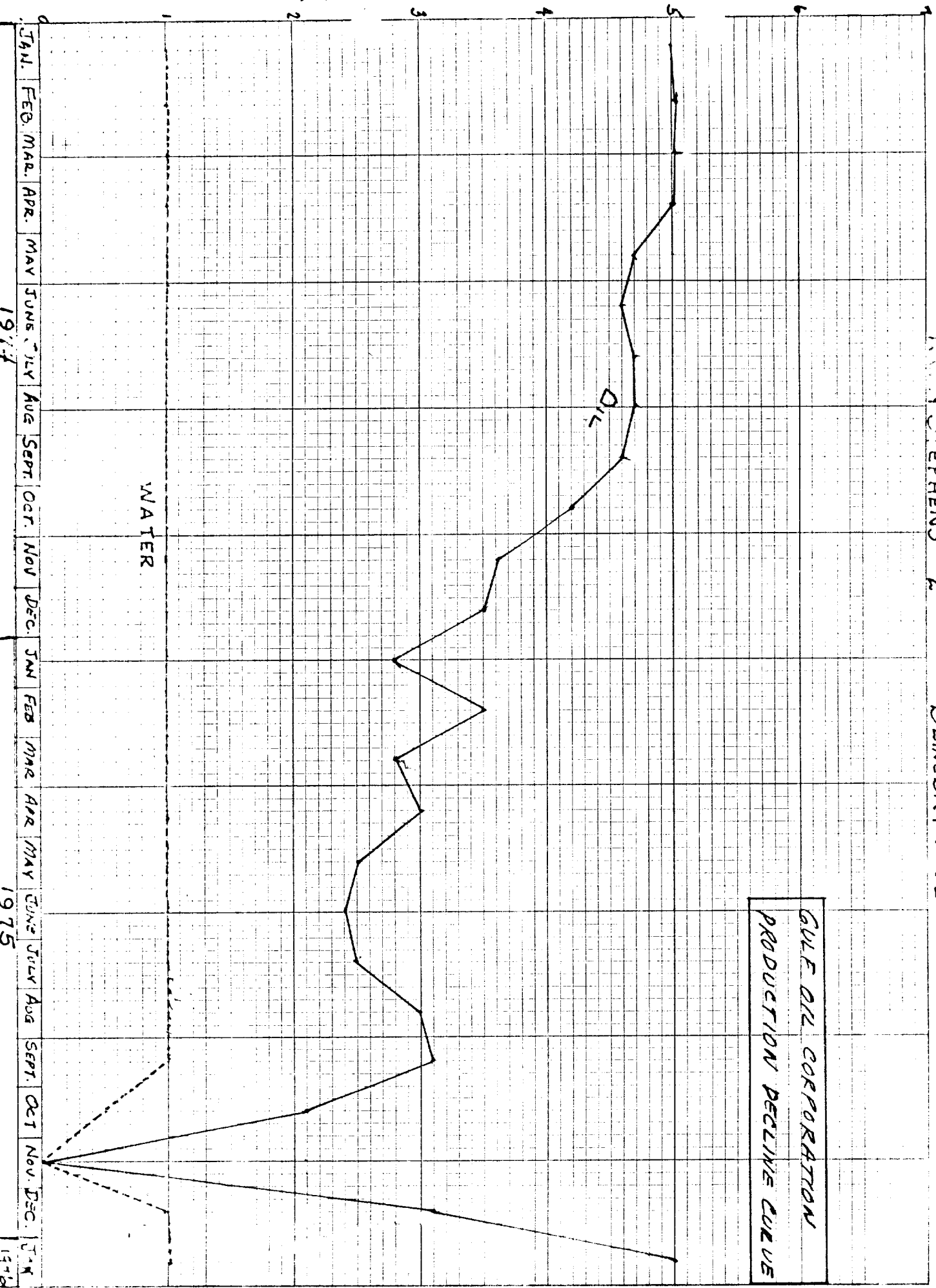
GULF OIL CORPORATION
 PRODUCTION DECLINE CURVE

AVERAGE BPD

WATER

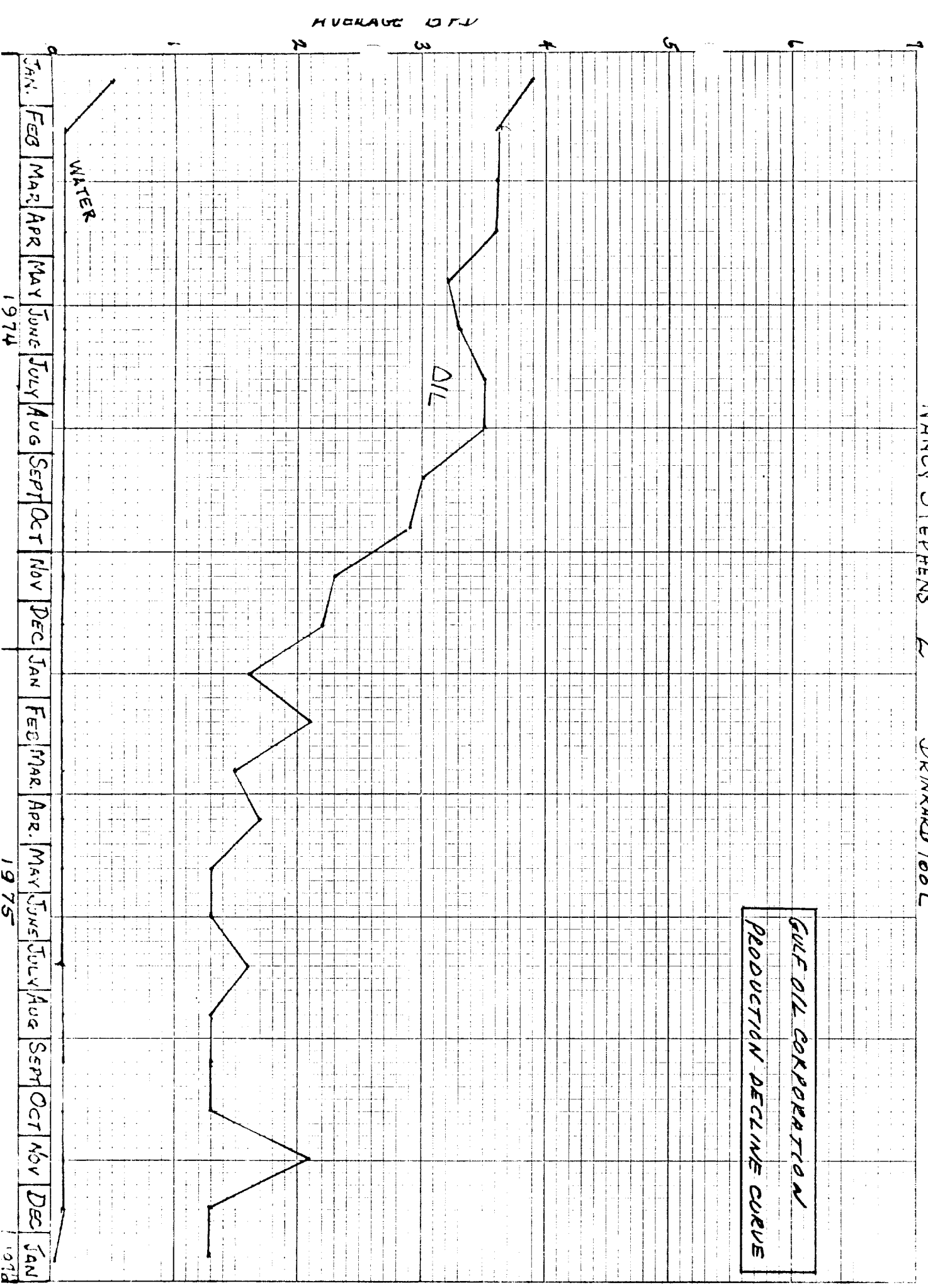
OIL

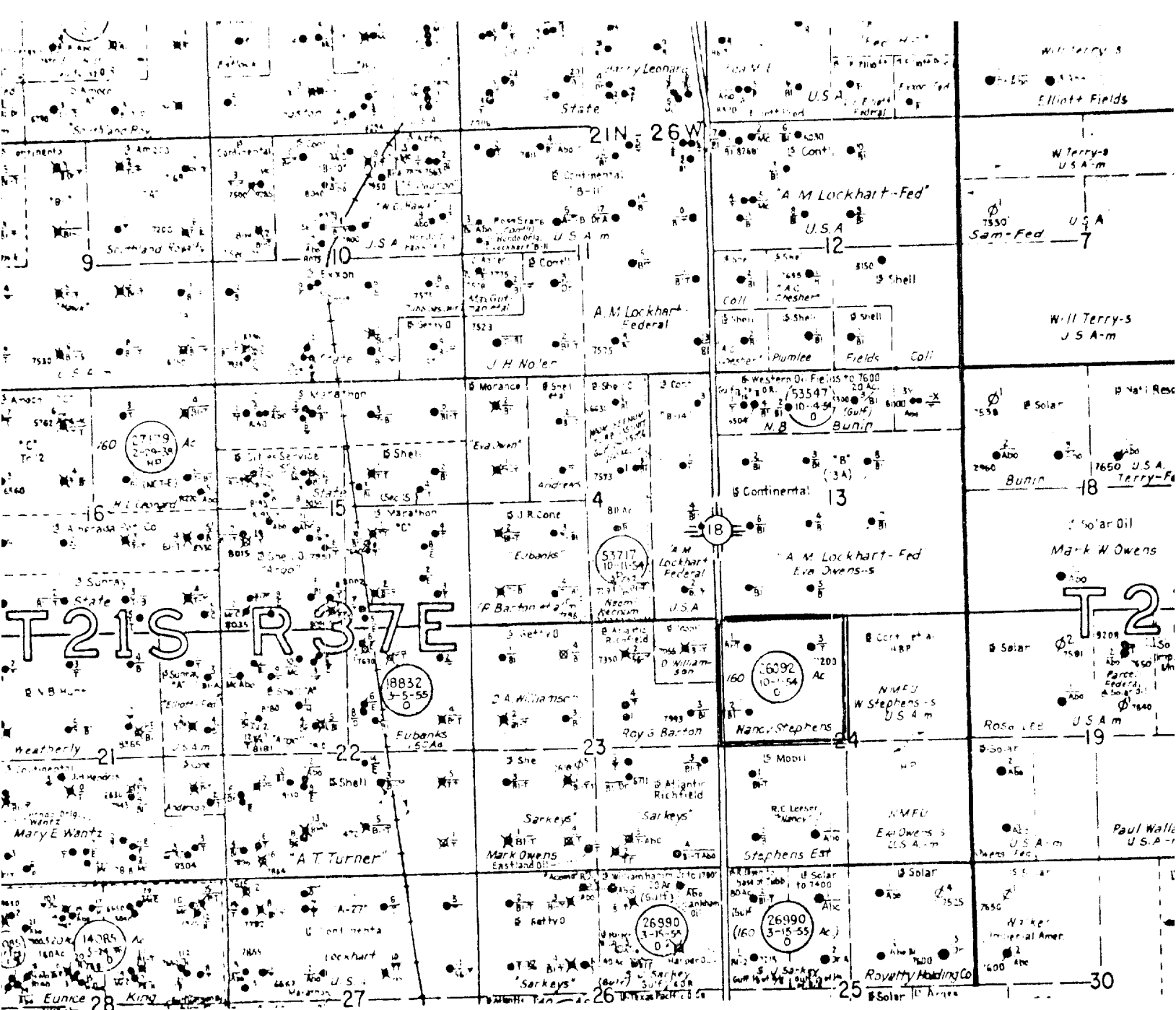
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. 1974
 1975
 JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. 1976



NANCY STEPHENS #2 DRINKARD POOL

GULF OIL CORPORATION
PRODUCTION DECLINE CURVE





NEW OIL CORPORATION

Ward

Lea

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOLES	PROD. DURING TEST				GAS - OIL RATIO CU FT / BBL
		U	S	T	R						WATER BBLG.	GRAV. OIL	OIL BBLG.	GAS M.C.F.	
Nanci Keenum Nancy Stephens	1	J	14	21	37	1-14-76	P 2" W0	30	11	24	2	40.6	9	22.0	2444
	2	E	24	21	37	1-19-76	P 2" W0	35	1 1/4	2 1/2	0	39.0	3	6.0	2000
Test To Apply for Down-Hole Comingling															

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Gas volumes must be reported in MCF measured at a pressure base of 15.025 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.

Well official and one copy of this report to the district office of the New Mexico Oil Conservation Commission 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.

Well Tester

[Signature]
(Signature)

February 10, 1976
(Date)

