

DHC - 188

Date - 3/4/76

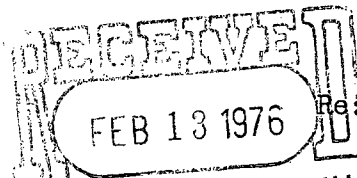
Gulf Energy and Minerals Company - U. S.

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.
OIL CONSERVATION COMM.
Santa Fe

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.



A DIVISION OF GULF OIL CORPORATION

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 BWPD, GOR 5111. Drinkard Oil (1-19-76) pumped 3 BOPD, 0 BWPD, GOR 2000.
9. All offset operators have been notified by copy of attached letter: Continental Oil Company, Mobil Oil Corporation, Atlantic Richfield Company.

Bottom of 6627

Bl prod 980 - 46,000 gal
Dr " 3 - 6,000 "
12 52

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-124
Revised 1-1-65

RESERVOIR PRESSURE REPORT

TYPE OF REPORT - (X) Initial Completion Special ☒ General Survey		Operator		Pool		County		Date											
Gulf Oil Company Address P. O. Box 670, Hobbs, New Mexico		Producing Formation		Oil Gradient		Water Gradient		Gas Gravity											
Blinberry		psf/ft.		psf/ft.		psf/ft.		Datum Plane											
2400'																			
LEASE	WELL NO.	LOCATION			ELEV.	OIL (o) OR GAS (g)	DATE TESTED	24 HRS	SHUT-IN TBG. PRESS.	BOMB TEST DATA				SONIC INSTRUMENT TEST DATA*				PRESS. AT DATUM	
		U	S	T						R	TEST DEPTH	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
Stephens	2	E	24	21	37	3414	1-22-76	24		5814	75°	540							540

All depths plus or minus sea 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.

Well Tester-Jarrel Services, Inc.

1-22-76

James R. Jarrel
(Signature)

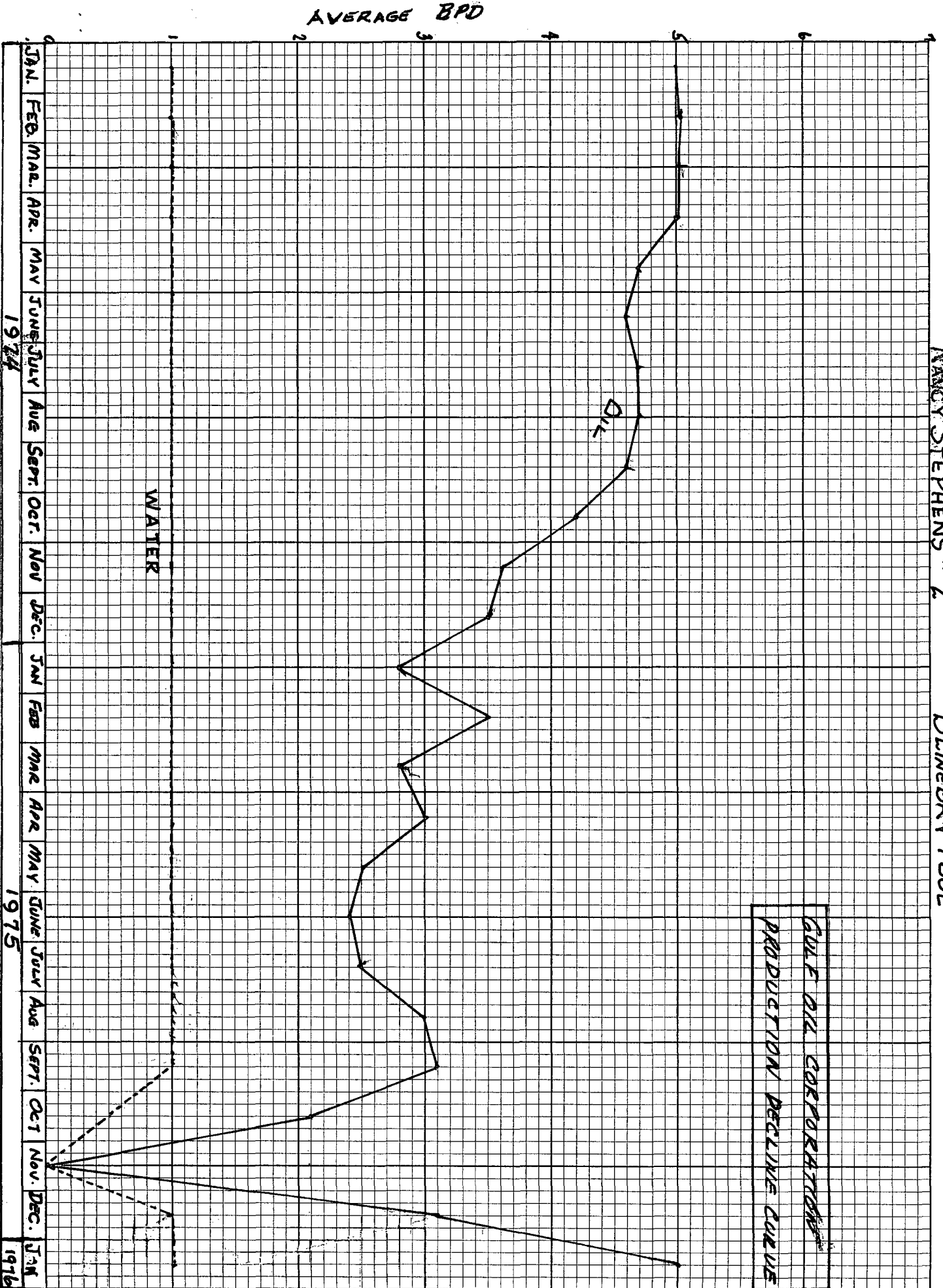
(Title)

(Date)

NANCY STEPHENS #2

BLINEBRY Pool

GULF OIL CORPORATION
PRODUCTION DECLINE CURVE

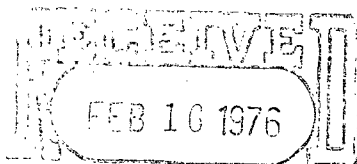


OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE February 12, 1976

RE: Proposed MC _____
Proposed DHC X _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____



Gentlemen:

I have examined the application dated _____

for the Gulf Oil Corp. Nancy Stephens #2-E 24-21-37
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.---J.S.

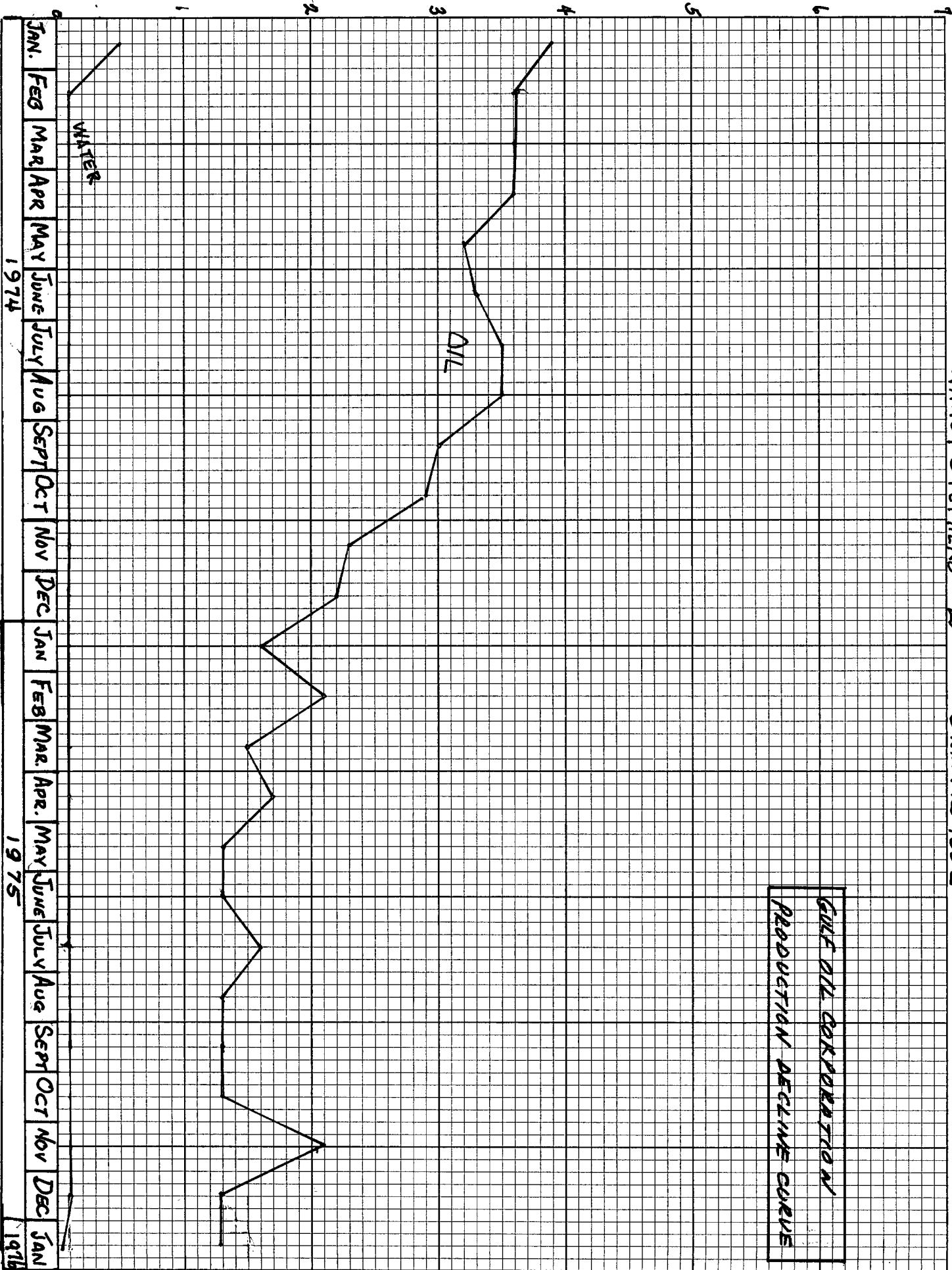
Yours very truly,

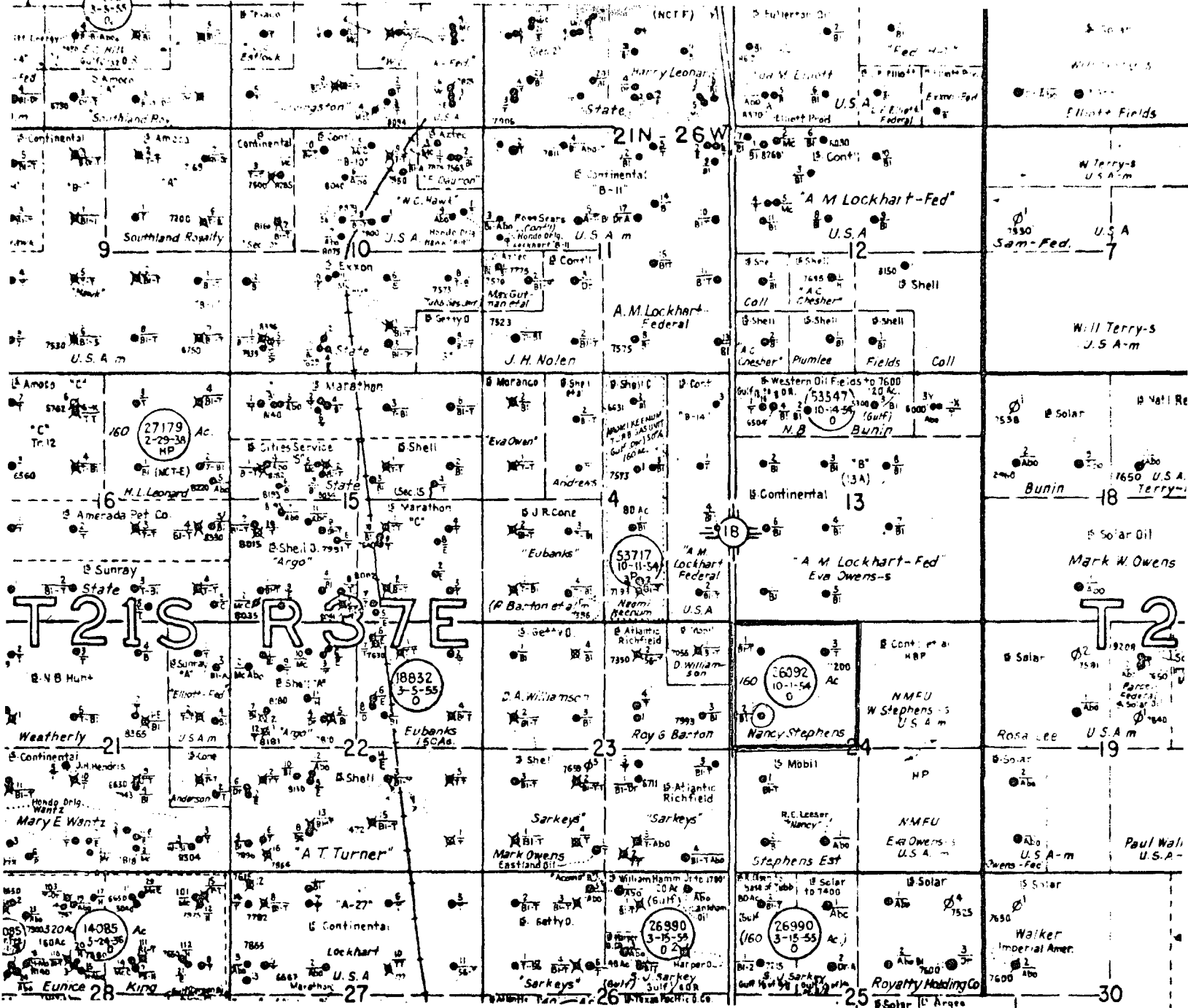
Jerry S. Spector

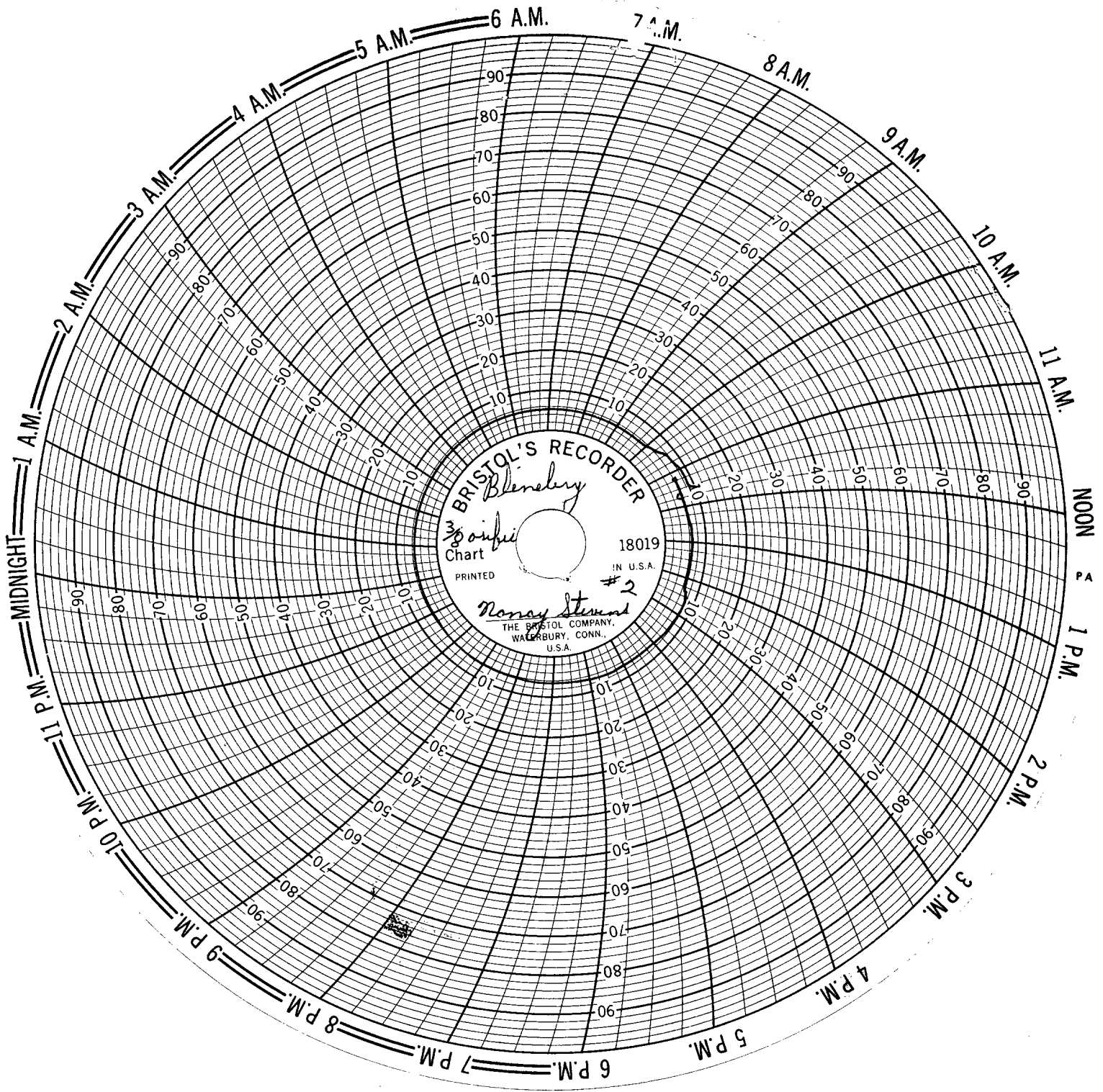
NANCY STEPHENS #2 Drinkard Pool

GULF OIL CORPORATION
PRODUCTION DECLINE CURVE

AVERAGE BPD







Pool *Bl. S. 1st pass*
Lease *2-1-1*
Well *2*
Date *9*
Oil *0*
Water *0*
Total Lfg. *5 1/2*
G.O.R. *5 1/2*
G.L.R.
Tub. Pres *210*
CSG. Pres *210*
Allo Mo. test *2 1/2*
Choke *3 1/2*
Plate Size *6 1/2*
Aug Diff 24 Bbs *16.0*
24 hr. M. CE
Prev. G.O.R.
Max. G.O.R.
27.2

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator		Pool		County										
Gulf Oil Corporation		Blaine Oil and Gas		Lea										
Address Box 670, Hobbs, N. M. 88240				Type of Test - (X) ☒ TEST - (X)										
Lease Name				Completion ☐ Special ☒										
WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU. FT./BB	
	U	S	T	R						WATER BBL.	GRAV. OIL BBL.	GAS M.C.F.		
1	J	14	21	37	1-14-76	30/64"	80	10	24	1	36.4	8	27.0	3375
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 allowables 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 301 and appropriate pool rules.

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

W. E. Schmitt
(Signature)
Well Tester

February 10, 1976
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Gulf Oil Corporation		Pool Blinebry Oil and Gas		County Lea											
Address Box 670, Hobbs, N. M. 88240		TYPE OF TEST - (X) ☒ Scheduled ☐ Special		Completion ☐ Special ☒											
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU. FT./BBL	
		U	S	T	R						WATER BBL'S.	GRAV. OIL	OIL BBL'S.		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
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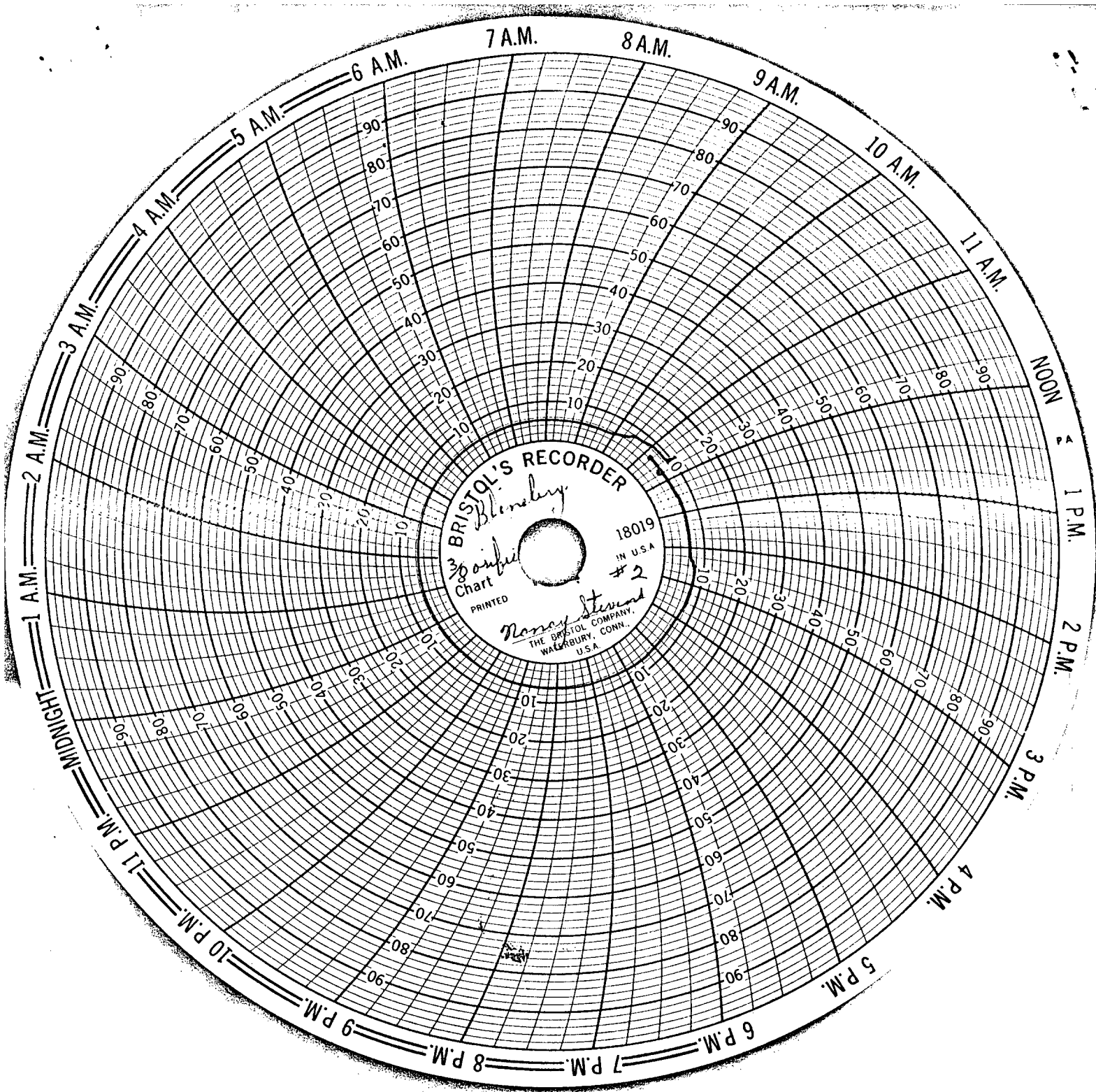
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I hereby certify that the above information is true and complete to the best of my knowledge and belief.

[Signature]
Well Tester (Signature)

February 10, 1976 (Title)



NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

Oil
Revised 1-1-76

Operator		Pool		County																			
Gulf Oil Corporation		Drinkard		Lea																			
Address		TYPE OF TEST - (X)		Completion		Special																	
LEASE NAME		WELL NO.		LOCATION		DATE OF TEST		STATUS		CHOKE SIZE		TBG. PRESS.		DAILY ALLOW-ABLE		LENGTH OF TEST HOUS		WATER BBLs.		PROD. DURING TEST		GAS - OIL RATIO	
Naomi Keenum	1	J	14	21	37	1-14-76	P	2" WO	30	11	24	2	40.6	9	22.0	2444							
Nancy Stephens	2	E	24	21	37	1-19-76	P	2" WO	35	14	24	0	39.0	3	6.0	2000							
Test To Apply for Down-Hole Comingling																							

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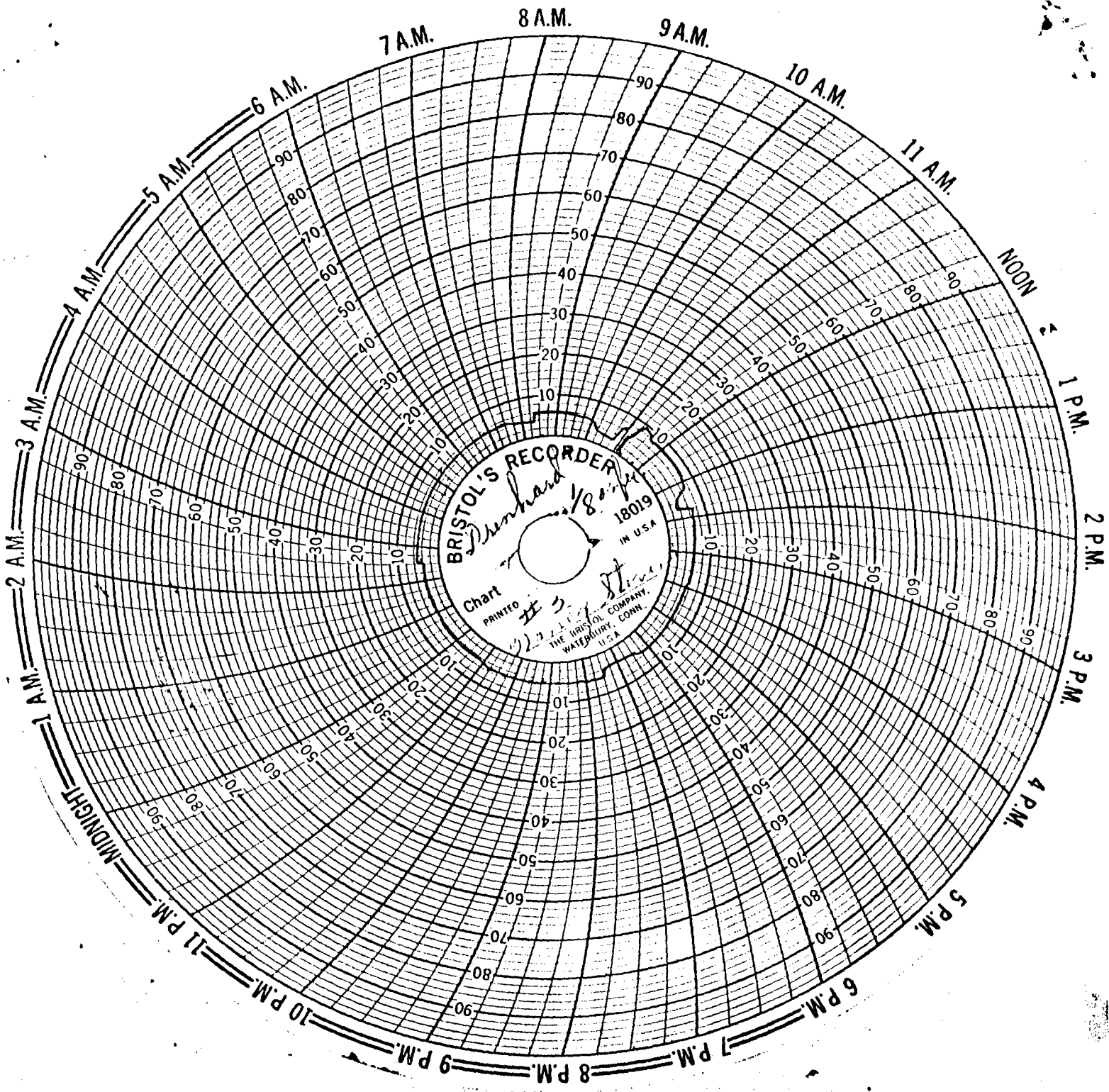
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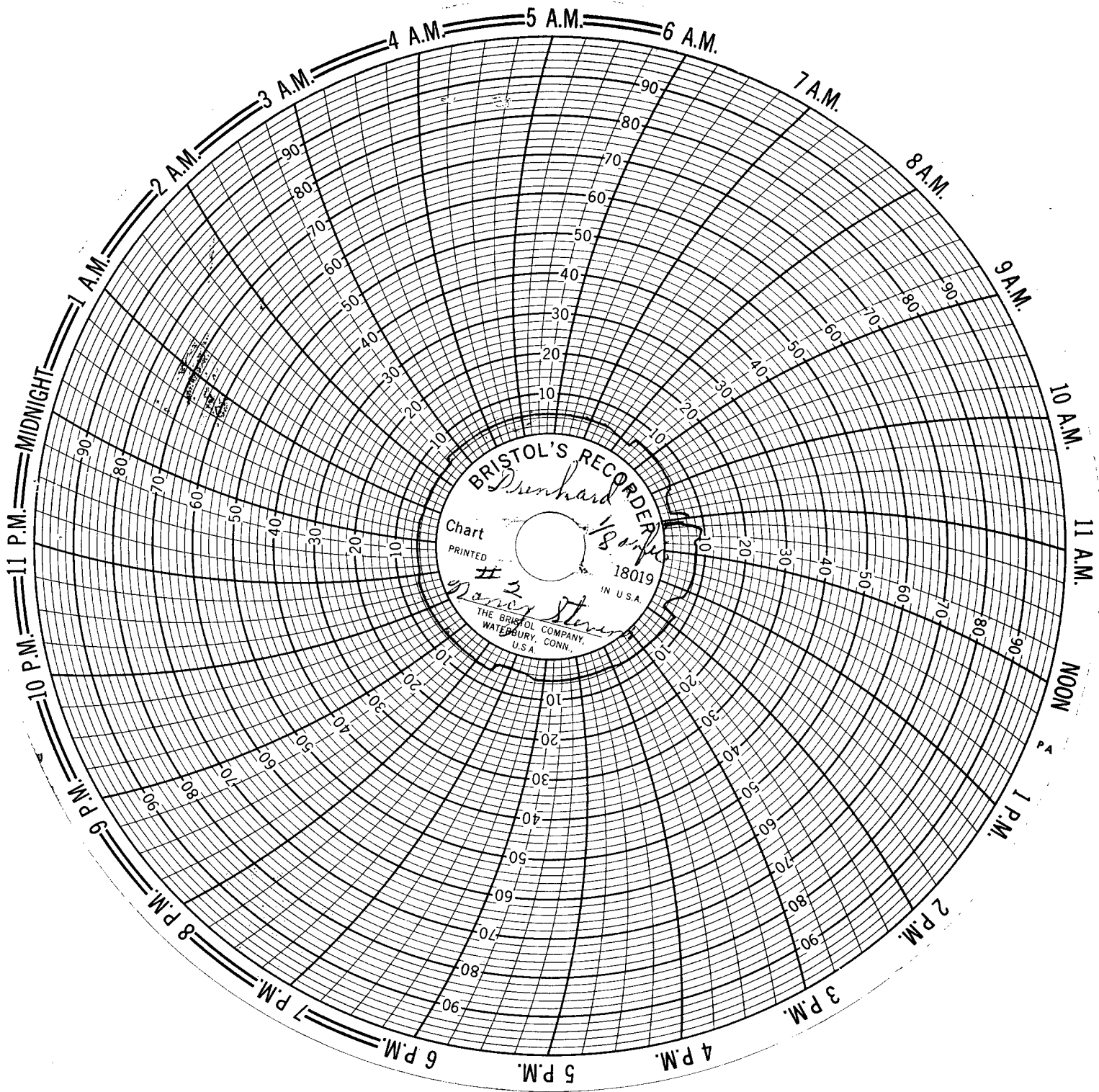
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[Signature]
Well Tester
(Signature)

February 10, 1976
(Date)





Pool *Ork.*
Lease *N. Stephens*
Well *2*
Date *1-19-76*
Oil *3*
Water *0*
Total Liq. *3*
G.O.R. *2000*
G.L.R.
Tub. Pres *35*
CSG. Pres *35*
Allo Mo. test *-*
Choke *2" 180.*
Plate Size *1/8*
Aug Diff 24 hr. *5.5*
24 hr. M. CF *6.0*
Prev. G.O.R.
Max. G.O.R.

9x 72 5PM
Corr. Guty. *Duty 39.0*

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

Form
Revised 1-1-65

Operator Gulf Oil Corporation		Pool Wrinkard		County Lea											
Address		TYPE OF TEST - (X)		Completion ☐ Special ☒											
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 BBL.G.	GRAV. OIL		OIL BBL.G.	GAS M.C.F.
Naomi Keenum	1	J	14	21	37	1-14-76	P 2" WO	30	11	24	2	40.6	9	22.0	2444
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(Signature)

February 10, 1976

(Title)

(Date)