

Gulf Energy and Minerals Company

PRODUCTION DEPARTMENT
HOBBS AREA

OIL CONSERVATION COMMISSION

C. D. Borland
AREA PRODUCTION MANAGER

March 3, 1977

Santa Fe
P. O. Box 670
Hobbs, New Mexico 88240

DHC - 214
Due - 3/24/77

Re: Watkins Lease, Well No. 2,
Unit "P", Section 29-T22S-R38E,
Lea County, New Mexico

Mr. Joe D. Ramey
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, NM 87501

Dear Sir:

Your administrative approval is requested for an exception to Rule 303-A to permit downhole commingling of marginal production in the subject well from the Drinkard and Blinebry Oil and Gas Pools. Production from the same two pools is presently being commingled down-hole in 14 Gulf operated wells (see attached data sheet). 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. Downhole commingling will allow the recovery of additional hydrocarbons from this well by returning the Drinkard zone (both Vivian and Andrews zones) to production. Improved operating efficiency and a lower economic limit will increase recoverable reserves due to a smaller investment in producing equipment (well would be produced as a single completion from the standpoint of equipment investment and maintenance cost). Should secondary recovery operations become practical in the future, the two zones could be separated at that time without damaging either of the two reservoirs. Production would be allocated by subtracting currently stabilized Blinebry production from total commingled production, and allocating the remaining production to the Drinkard zone.

The Blinebry zone is presently being produced by rod pump. After reentering the Drinkard zone, the well would be tubed to bottom and both zones would be kept pumped down to prevent cross flow between the zones. The existing pumping equipment would 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.

Bottom pf: 6562
max prod: 40 BOPD

Yours very truly,



C. D. BORLAND

Attachments
CRK/dch

cc: New Mexico Oil Conservation Commission
P. O. Box 1980
Hobbs, NM 88240

Offset Operators:
Texaco Inc.
Amoco Production Company

C. F. Kalteyer - Midland



A DIVISION OF GULF OIL CORPORATION

WATKINS LEASE, WELL NO. 2

1. Operator: Gulf Oil Corporation
P. O. Box 670
Hobbs, NM 88240
2. Lease and Well Number: Watkins, Well No. 2
660'FS&EL, Section 29-22S-38E,
Lea County, New Mexico
3. Pools: Drinkard
Blinebry Oil and Gas
4. Decline Curves: A decline curve for the lower Drinkard (Andrews) zone is attached. This zone produced only until November, 1976, at which time it was temporarily abandoned. No decline curve on the upper Drinkard (Vivian) zone is available. This zone was opened and swab tested during November, 1976 and temporarily abandoned at that time. It is estimated that this upper Drinkard (Vivian) zone probably would pump at a stabilized rate of 10 BOPD. It is estimated that the combined production from the two Drinkard zones (Vivian and Andrews) would be 12 BOPD.

The attached decline curve for the Blinebry zone is for only a 3-1/2 month period from November, 1976 through February, 1977. Additional interval was perforated and frac treated in the Blinebry zone during November, 1976.

5. Estimated BHP (based on most recent average BHP data within vicinity of this well):

| <u>Pool</u> | <u>Datum</u> | <u>Pressure @ Datum</u> |
|----------------------|--------------|-------------------------|
| Drinkard | -3050' | 600 |
| Blinebry Oil and Gas | -2400' | 550 |

6. Fluid Characteristics: These are both Intermediate crude oils. Production from these same two pools are presently being commingled downhole in Gulf's Naomi Keenum Well No. 1, Order No. DHC-189, Nancy Stephens No. 2, Order No. DHC-188, and twelve other Gulf operated wells. There has been no evidence of fluid incompatibility. ✓

7. Value of Commingled Fluids:

| <u>Pool</u> | <u>BOPD</u> | <u>API Gvty @ 60°F</u> | <u>\$/Bbl.</u> | <u>Revenue/Day</u> |
|-------------|-------------|------------------------|----------------|--------------------|
| Drinkard | 12 | 38.1 | \$13.86 | \$ 166.32 |
| Blinebry | 23 | 34.7 | 13.78 | 316.94 |
| | | | | \$ 483.26 |
| Commingled | 35 | 35.9 | 13.80 | \$ 483.00 |
| Difference | | | | - \$ 0.26 |

8. Current Tests: Drinkard (Andrews) zone pumped 4 BOPD, 1 BWPD, 71 MCFPD, GOR 17,750 on last test dated 2-18-76. However, during period from March through October, 1976, production averaged only 2.45 BOPD.

Drinkard (Vivian) zone was perforated, frac treated and swab tested during November, 1976. Swabbed 3 BO and 67 BLW in 11-1/2 hours on 11-4-76. We estimate that this zone will produce approximately 10 BOPD and very little water, if any, on pump. This zone has not been produced, other than by swab.

Blinebry (2-6-77) pumped 19 BOPD, 4 BWPD, 119 MCFPD, GOR 6263. However, production during February 1977 averaged 23 BOPD.

9. All offset operators have been notified by copy of the attached letter:

Texaco Inc., P. O. Box 3109, Midland, TX 79701
Amoco Production Company, P. O. Drawer A, Levelland, TX 79336

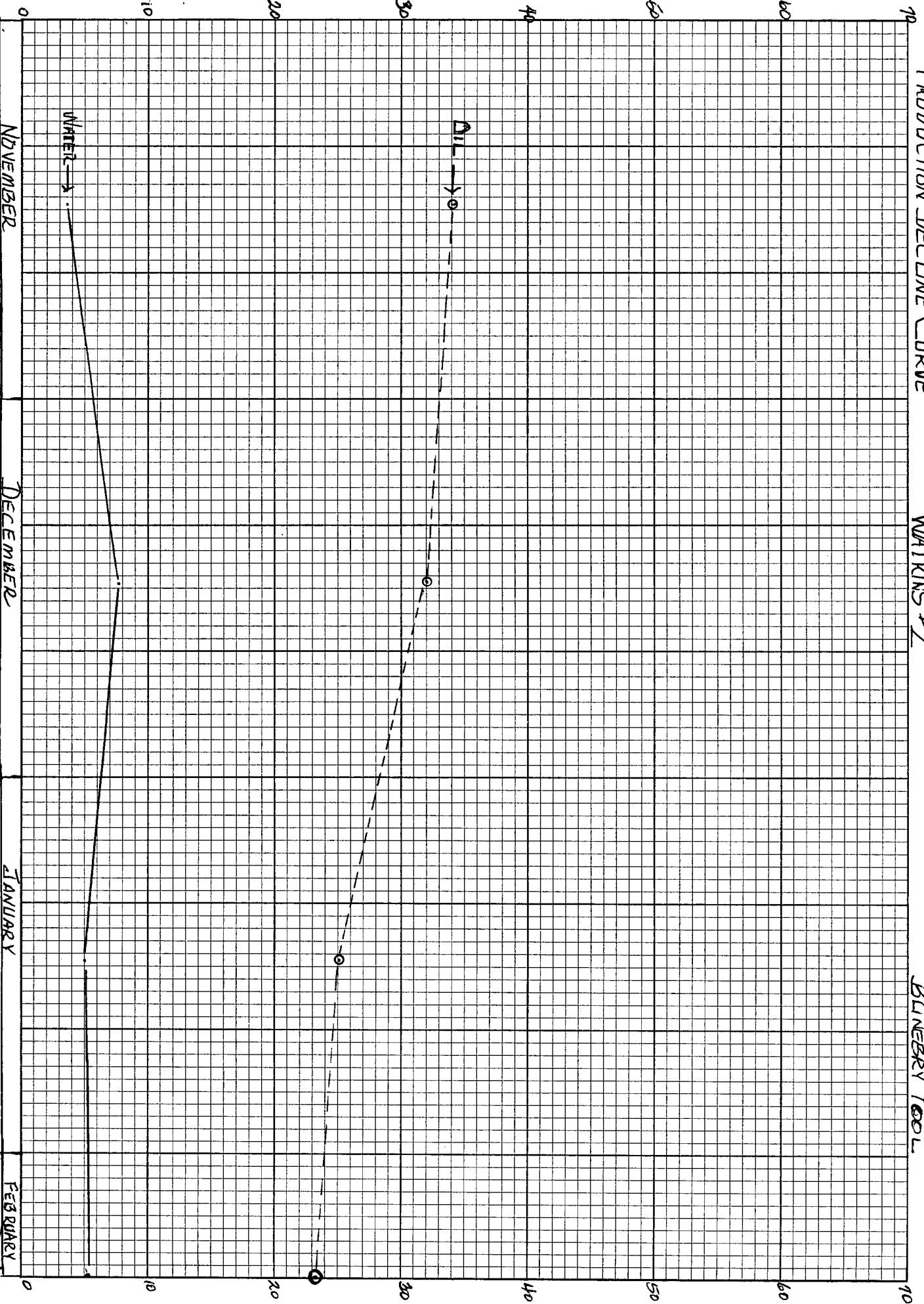
GULF OIL CORPORATION

PRODUCTION DECLINE CURVE

WATKINS #2

BUNEBRY POOL

BPD



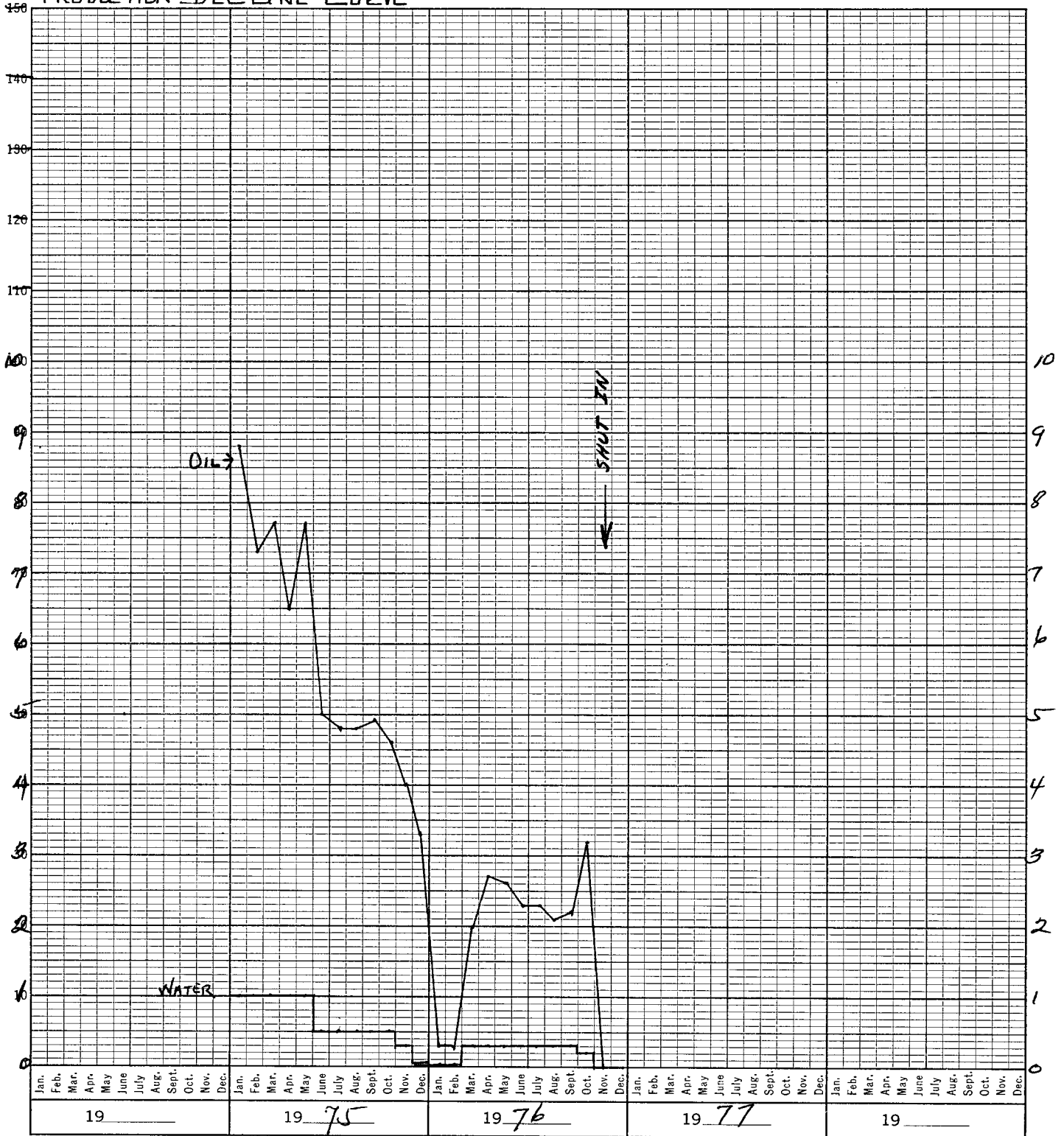
GULF OIL CORPORATION

WATKINS #2

DRINKARD POOL

LOWER (ANDREWS) ZONE ONLY

PRODUCTION DECLINE CURVE



Bbls Oil Per Day

C116
Revised 1-1-65

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.

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

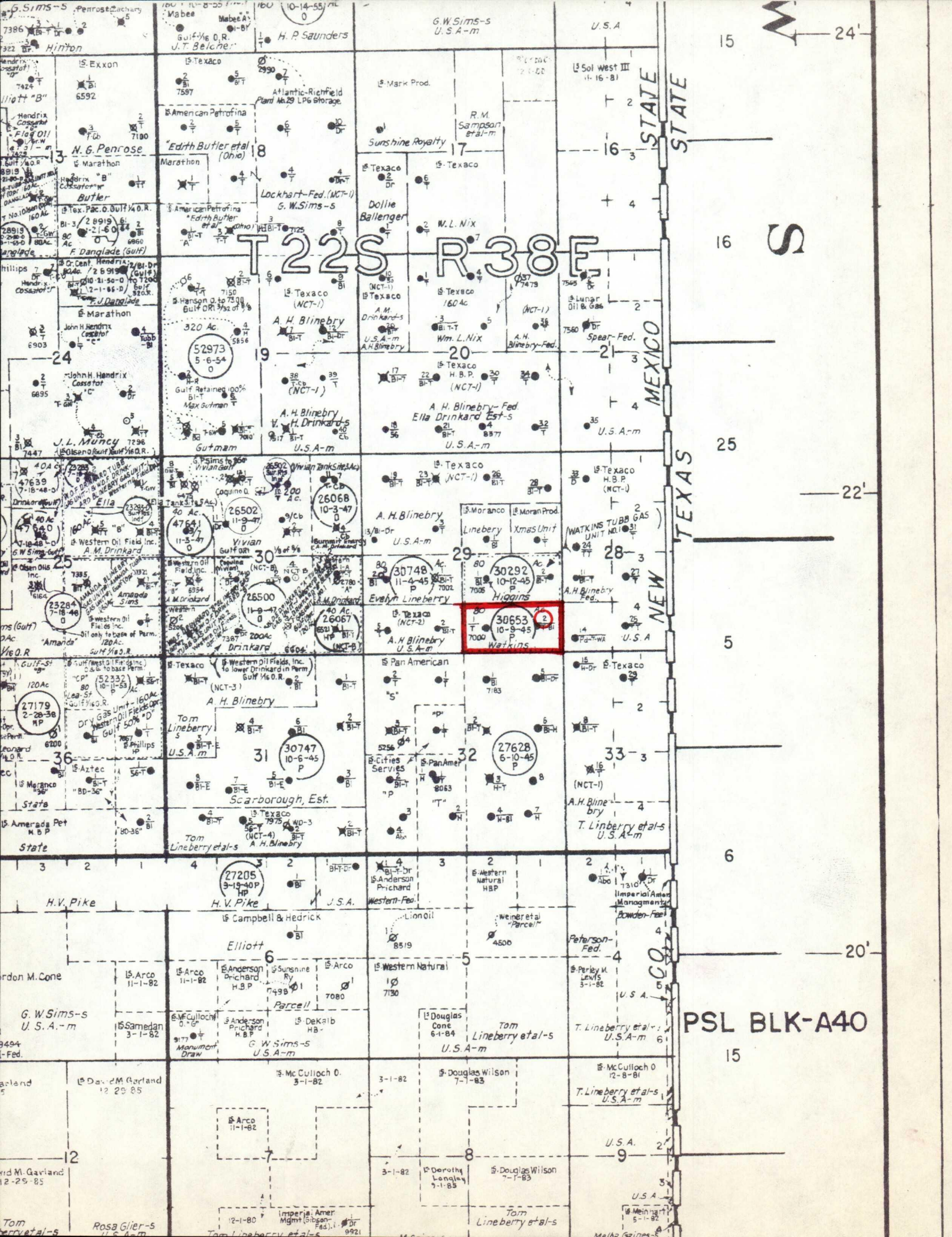
Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail 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.

Well Tester

(734e)

March 1, 1977



OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE March 4, 1977

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

REC-7 1977

Gentlemen:

I have examined the application dated _____
for the Gulf Oil Corp. Watkins #2-P 29-22-38
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.---J.S.

Yours very truly,

