

# Mobil Oil Corporation

THREE GREENWAY PLAZA EAST - SUITE 800  
HOUSTON, TEXAS 77046

December 3, 1976

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

Attn: Mr. Joe D. Ramey

7.01  
MOBIL OIL CORPORATION'S  
APPLICATION FOR EXCEPTION TO  
RULE 303(A) FOR AUTHORIZATION  
TO DOWNHOLE COMMINGLE PRODUCTION  
FROM THE VACUUM WOLFCAMP AND  
VACUUM LOWER PENN. POOLS IN THE  
WELLBORE OF THE BRIDGES-STATE  
WELL NO. 98, LEA COUNTY, NEW MEXICO

Gentlemen:

Mobil Oil Corporation requests administrative approval to commingle in the wellbore oil production from the Vacuum Wolfcamp and Vacuum Lower Penn Pools in Well No. 98 on the Bridges State Lease, located in Unit J, Section 26, T-17-S, R-34-E, Lea County, New Mexico.

This well is a triple tubingless completion in the Vacuum (Abo, Wolfcamp and Lo. Penn) Pools, authorized by Commission Order No. MC-1438-A. The Penn production quit flowing after producing at rates of less than 10 BOPD for a year. Due to unfavorable economics, this deep zone was not put on pump. However, the economics do look good for the proposed downhole commingled production, with both the Wolfcamp and the Lower Penn Pools being pumped with the existing Wolfcamp Pump. The commingling will be accomplished by perforating between the Wolfcamp and Lower Penn casing strings.

We do not have any bottom-hole pressure data available for these two zones. However, we expect no crossflow problems since the common pump will keep the fluid levels low.

Production is essentially water-free. Past engineering studies indicate that any water which does accumulate from the commingled production will present no problems from the formation of untreatable precipitates. The productivity tests (Form C-116) indicate that the allocation of production should be assigned 90% to the Wolfcamp Pool and 10% to the Lower Penn Pool. This allocation is generally reflected by the relative oil production graphs.

December 3, 1976

The value of the hydrocarbons from the two zones before and after commingling are shown to be the same on the computation sheet. The production is already commingled on the surface, as approved by Commission Order No. PC-100. Since the Lower Penn Zone is dead and uneconomical to produce as a single pumping well, this production will not be realized unless Mobil can downhole commingle.

The ownership of the two zones to be commingled is common in all respects.

All offset operators shown on the attached list have been notified of our request with copy of this application.

In support of this application, we submit the following attachments:

1. Plat showing location of the subject lease,
2. Copies of the latest well tests for each zone in the subject well,
3. Well test curves for each zone,
4. Exhibit "A" - Data sheet for both zones,
5. Exhibit "B" - Computation of relative values for the hydrocarbons,
6. Existing and proposed wellbore sketches,
7. Copy of the letter of consent from the purchaser of the crude, and
8. List of Offset Operators.

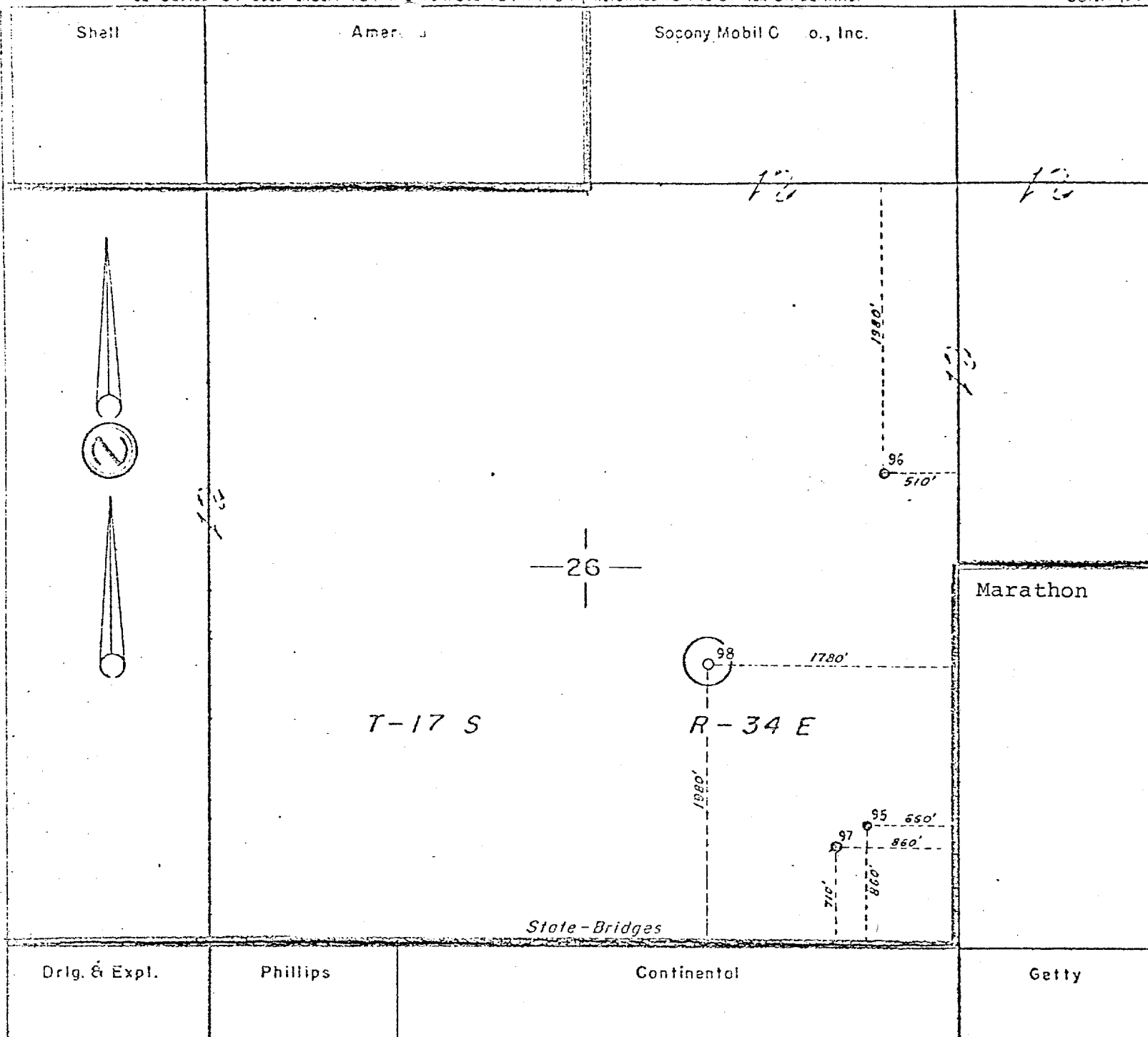
In conclusion, Mobil believes the approval of this request will result in more efficient recovery of hydrocarbons and will extend the productive life of both zones, thereby preventing waste.

Yours very truly,



J. A. Morris  
Regulatory Engineering Supervisor

WBSimmons Jr:to  
Attachments  
cc: NMOCC Dist. 1 - Hobbs



Location approved by

Plat by

A. D. Bond

Surveyed by

THE STATE OF TEXAS  
COUNTY OF MIDLAND

I hereby certify that this plat truly represents conditions as they actually exist on this lease; that said plat which is drawn to the scale indicated hereon, is to the best of my knowledge true and correct; that it accurately shows said lease with all wells on same; that number and locations of said wells are as indicated hereon; and that this plat correctly reflects all pertinent and required data.

SOCONY MOBIL OIL COMPANY, INC.  
EXPLORATION & PRODUCING DEPARTMENT  
MIDLAND DIVISION — MIDLAND, TEXAS

LEASE State-Bridges

WELL NO. 98 (Rev.)

DATE December 3

1976

DISTRICT Hobbs

LEASE NO. NM-569

TOTAL ACRES IN LEASE

5281.38

ACRES COVERED BY PLAT

DESCRIPTION Lot 2, SW 1/4 Sec. 3; NE 1/4 Sec. 10; S 1/2 Sec. 11; E 1/2 & SW 1/4 Sec. 12; W 1/2 & NE 1/4 Sec. 13; Sec. 14, E 1/2 Sec. 15; N 1/2 & SE 1/4 Sec. 23; W 1/2 NW, SE NW, & SW 1/4 Sec. 24, NW 1/4, N 1/2 NE & SW 1/4 NE 1/4 Sec. 25; Sec. 26; E 1/2 Sec. 27; T 17 S, R 34 E; E 1/2 Sec. 25; & E 1/2 Sec. 34; T 15 S, R 34 E

Lea County, New Mexico

DRAWN A. D. Bond

FIELD Vacuum (Wolfcamp)

(Lower Penn)

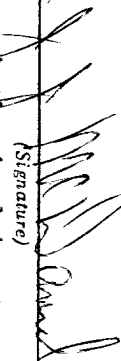
**NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS**

C-116  
Revised 1-1-65

Operator <b>Mobil Oil Corporation</b>		Pool <b>Vacuum Lower Penn</b>		County <b>Lea</b>	
Address <b>Three Greenway Plaza East, Suite 800, Houston, Texas</b>			TYPE OF TEST - (X) <input checked="" type="checkbox"/>		Scheduled <input type="checkbox"/>
LEASE NAME  <b>Bridges State</b>	WELL NO. <b>98</b>	LOCATION U S T R <b>26 17-S 34-E</b>			DATE OF TEST <b>8-7-75</b>
		CHOKE SIZE <b>2" T</b>			TBG. PRESS. <b>-</b>
		DAILY ALLOW-ABLE		LENGTH OF TEST HOURS <b>24</b>	GAS - OIL RATIO CU. FT./BBL <b>1250</b>
		WATER BBL'S.		PROD. DURING TEST OIL BBL'S.	
		GRAV. OIL BBL'S.		GAS M.C.F.	
		0		39.8	2
				2.5	

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.  
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.

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

  
(Signature)  
Authorized Agent

(Title)  
12-1-76  
(Date)

# NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator Mobil Oil Corporation		Pool Vacuum Wolfcamp		County Lea	
Address Three Greenway Plaza East, Suite 800, Houston, Texas 77046				TYPE OF TEST - (X) <input checked="" type="checkbox"/> TEST - (X)	
LEASE NAME Bridges State		WELL NO. 98	LOCATION J 26 17-S 34-E	DATE OF TEST 11-17-76	STATUS P
		U	S	T	R
				CHOKESIZE 2 1/2"	TBGS. PRESS. -
				DAILY ALLOWABLE 7	LENGTH OF TEST HOURS
				WATER BBL'S.	PROD. DURING TEST OIL BBL'S.
				GRAV. OIL BBL'S.	GAS M.C.F.
				0 40.6 17	30.6 1800

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

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

Authorized Agent

11-19-76

(Date)

GRAPH SHOWING

OIL PRODUCTION TEST VOLUMES  
MOBIL OIL CORPORATION'S  
BRIDGES STATE WELL NO. 98  
VACUUM FIELD AREA

PENNSYLVANIAN POOL

WOLF CAMP POOL

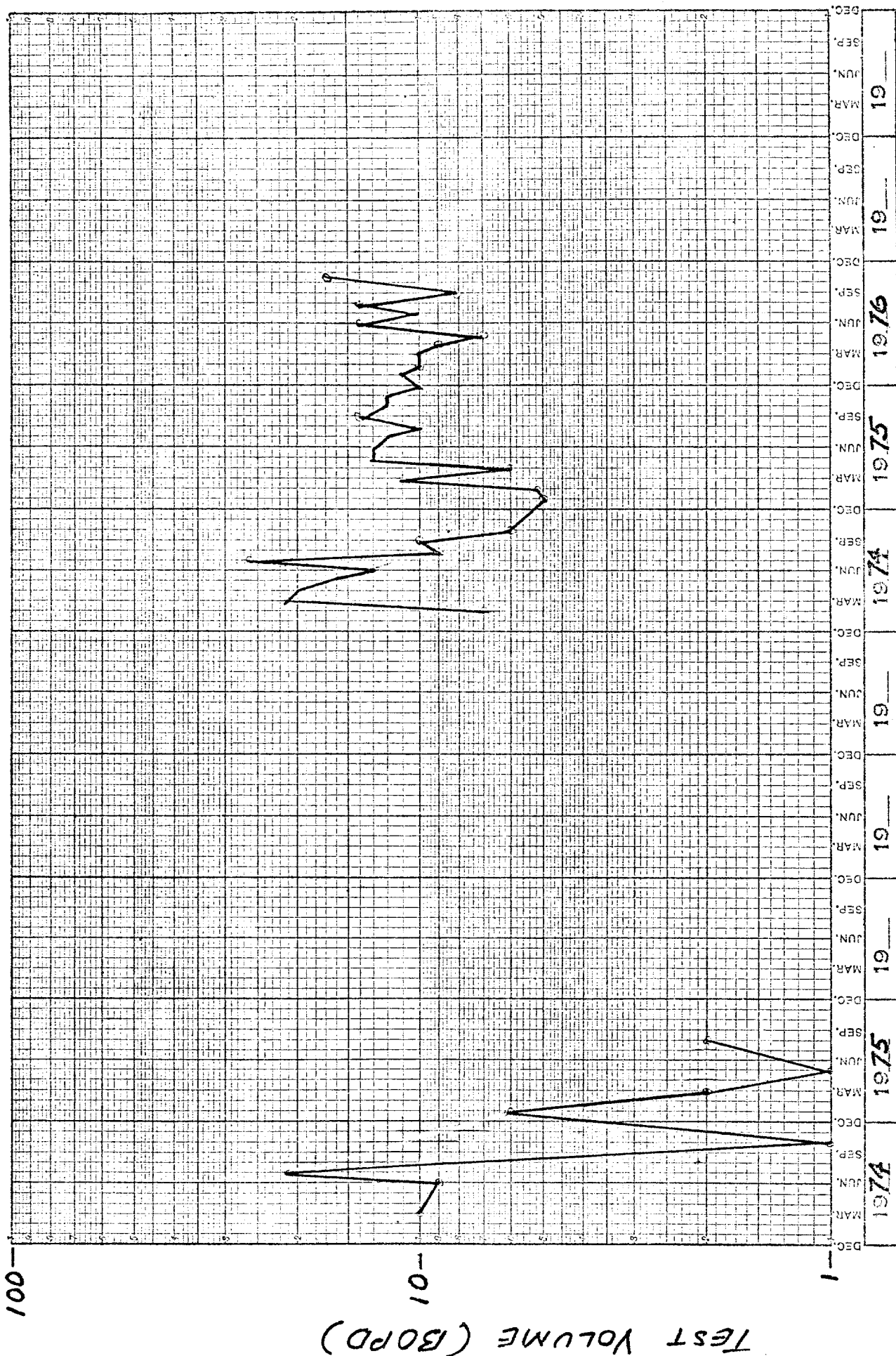


EXHIBIT "A"  
DATA SHEET

MOBIL OIL CORPORATION  
P. O. BOX 633  
MIDLAND, TEXAS 79701

APPLICATION FOR EXCEPTION TO RULE 303(a) OF NEW MEXICO OIL CONSERVATION  
COMMISSION'S RULES & REGULATIONS ALLOWING DOWNHOLE COMMINGLING OF DUALY  
COMPLETED OIL WELLS BY ADMINISTRATIVE PROCEDURE (ORDER NO. R-3845)

1. Lease Name Bridges-State
2. Well No. 98
3. Well Location: Unit J, 1980 feet from South line, 1780  
feet from East line of Section 26, Township 17-S Range 34-E,  
Lea County, New Mexico
4. Upper Zone Wolfcamp
5. Completion Interval 9,995'-10,119'
6. Lower Zone Pennsylvanian
7. Completion Interval 11,468'-11,508'
8. Dual Completion Authorized by Commission Order No. MC-1438-A
9. Current Productivity Test Summary (Form C-116 attached)

	Vacuum Wolfcamp (Upper Zone)	Vacuum Lower Penn. (Lower Zone)
Producing Method	Pump	Dead
Oil Bbl./day	<u>17</u>	<u>2</u>
Gas Mcf/day	<u>30.6</u>	<u>2.5</u>
Water Bbl./day	<u>0</u>	<u>0</u>
GOR	<u>1800</u>	<u>1250</u>
GOR Limit	<u>2000</u>	<u>2000</u>

10. Bottom-hole Pressure of Upper Zone Not Available
11. Bottom-hole Pressure of Lower Zone Not Available
12. Fluid Characteristics of Each Zone Both zones produce an intermediate  
sweet type crude. Expect no problems from the formation of untreatable  
precipitates in the commingled produced water.

By: WBSimmons  
Date: 12-3-76

EXHIBIT "B"  
MOBIL OIL CORPORATION  
P. O. BOX 633  
MIDLAND, TEXAS 79701  
COMPUTATION OF RELATIVE  
VALUES OF THE HYDROCARBON  
PRODUCTIVE BEFORE AND  
AFTER DOWNHOLE COMMINGLING  
(STATEWIDE RULE 303-C-2-h)

LEASE AND WELL NUMBER Bridges-State Well No. 98

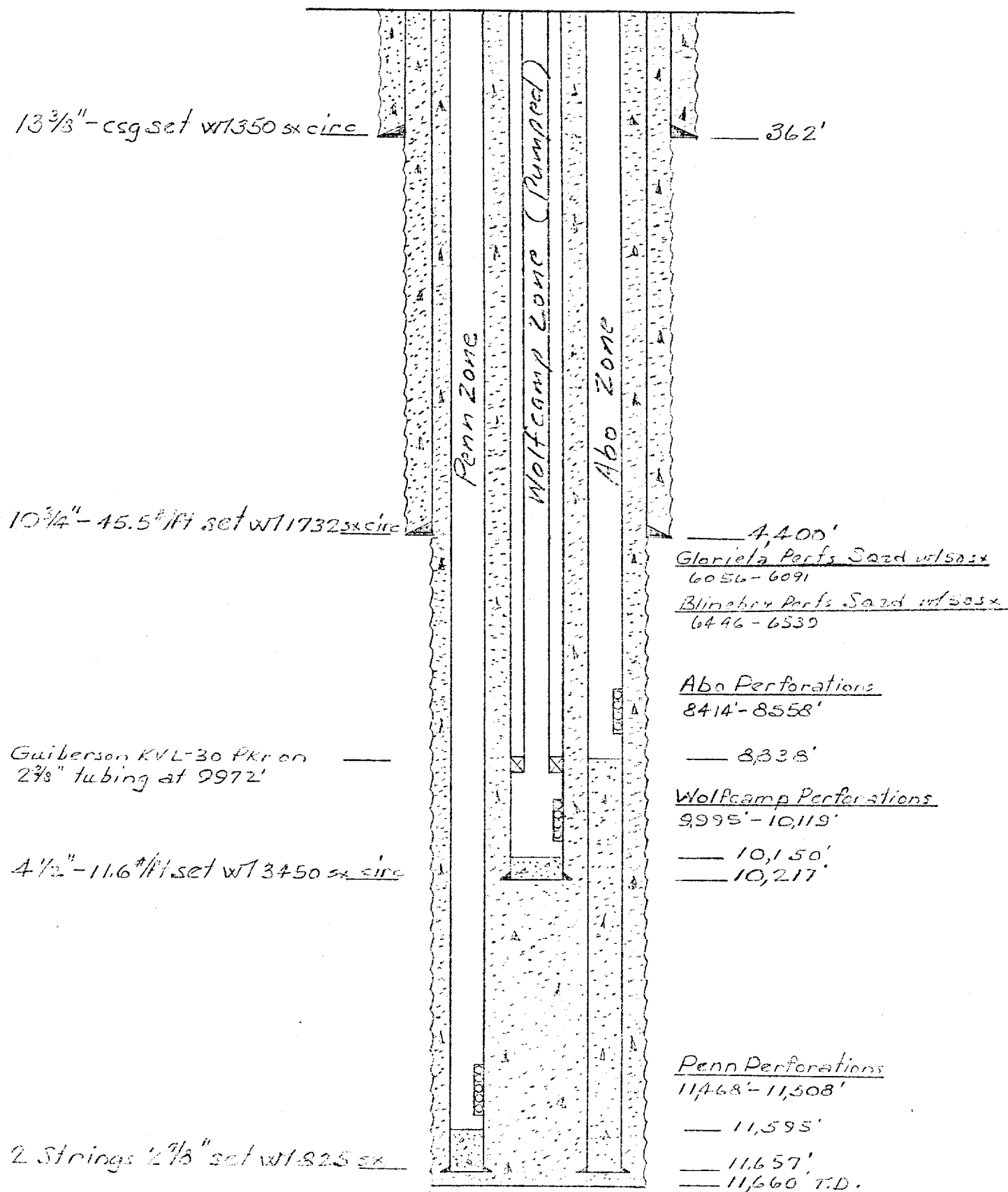
	<u>UPPER POOL</u>	<u>LOWER POOL</u>	<u>COMMINGLED</u>
POOL NAME	<u>Vacuum Wolfcamp</u>	<u>Vacuum Lower Penn.</u>	
GRAVITY, API	<u>40.6°</u>	<u>39.8°</u>	<u>40°</u>
SELLING PRICE /BBL.	<u>\$ 5.31</u>	<u>\$ 5.31</u>	<u>\$ 5.31</u>
DAILY PRODUCTION /BBL.	<u>17</u>	<u>2</u>	<u>19</u>
DAILY INCOME	<u>\$90.27</u>	<u>\$10.62</u>	<u>\$100.89</u>
TOTAL DAILY INCOME (POOLS SEPARATED) \$ <u>100.89</u>			

Net difference realized from downhole commingling based on current well test =  
\$0 /day---gain or loss.

REMARKS: The production from these two zones are already commingled on the  
surface and there will not be any difference in the income from this  
proposed downhole commingling. However, the lower zone is dead and the  
well will continue to suffer a \$10.62/day loss until it is downhole  
commingled and its production pumped with the upper zone.



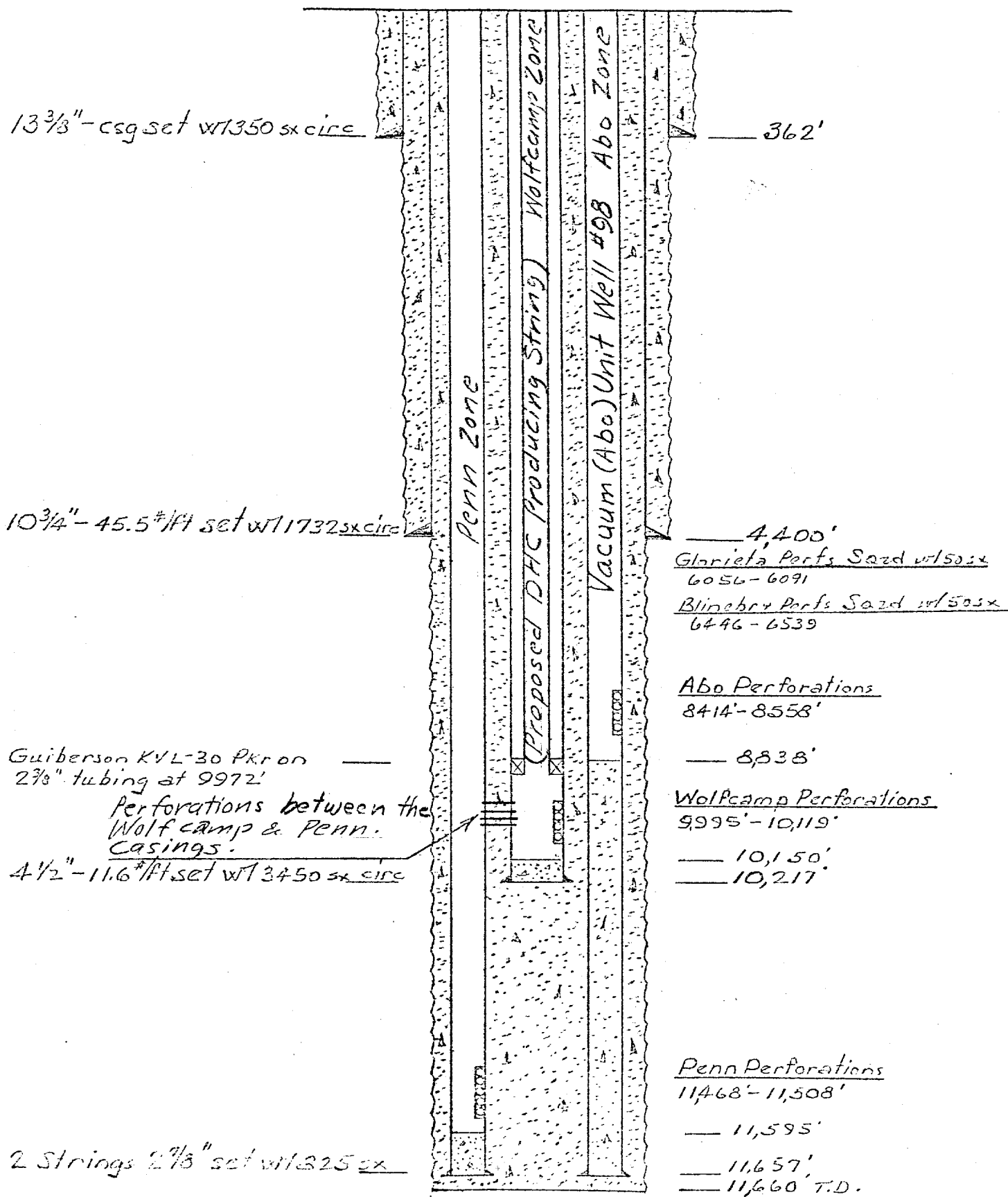
Diagrammatic Well Sket -  
Bridges State Well No 98  
Vacuum (Abo) (W. I. Co) (Penn) Pools  
Lee County, New Mexico



11-17-76  
100

(EXISTING)

Diagrammatic Well Sketch  
Bridges State Well No. 98  
Vacuum (Abo) (Wolf) (Penn) Pools  
Lea County, New Mexico



11-17-76

(PROPOSED)

INTEROFFICE CORRESPONDENCE

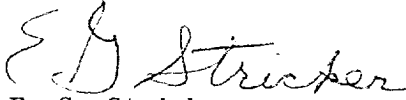
DATE September 23, 1976

TO W. B. Simmons, Jr.

C.C. D. R. Wall, Jr.

MOBIL OIL CORPORATION  
BRIDGES STATE 98  
LEA COUNTY, NEW MEXICO

Mobil Oil Corporation, as the purchaser of the intermediate production of the above captioned lease, has no objection to the downhole commingling of the Wolfcamp and Pennsylvanian crude oil.

  
E. G. Stricker  
Crude Oil Department

EGS/tw

OFFSET OPERATORS  
MOBIL OIL CORPORATION'S  
BRIDGES-STATE LEASE WELL NO. 98  
LEA COUNTY, NEW MEXICO

Phillips Petroleum Co.  
Phillips Building  
Odessa, Texas 79760

Continental Oil Co.  
P. O. Box 460  
Hobbs, New Mexico 88240

Getty Oil Co.  
P. O. Box 249  
Hobbs, New Mexico 88240

Marathon Oil Co.  
P. O. Box 2409  
Hobbs, New Mexico 88240