



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79760
PHILLIPS BUILDING, FOURTH & WASHINGTON

EXPLORATION & PRODUCTION DEPARTMENT

cc: N.M.O.C.C., Hobbs (Attach.)
Pan Am (Attach.)
State Land Office

December 17, 1968

Ranger Lake Unit--Tract 2, Well No. 1,
Ranger Lake Penn Field, Lea County,
New Mexico
Application to Convert Well and
Inject Water

File: W3-McC-649-68

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

Gentlemen:

Attached is our application and supporting data for the conversion of Ranger Lake Unit Tract 2 Well No. 1, Unit P, Section 23, T-12-S, R-34-E, Lea County, New Mexico, and injection of water into the well.

The Ranger Lake Unit was originally approved by NMOCC Order No. R-2751, July 22, 1964. This order granted Phillips Petroleum Company authority to operate this unit with 7 injection wells.

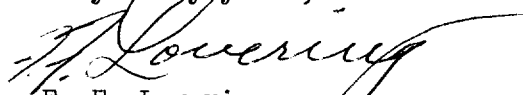
As shown on Forms C-116 attached, the affected wells offsetting injection well 2-W-2 began to show waterflood response by increased fluid production in 1965 and continued increasing through early 1966. However, well 2-1 showed increased water production with decreasing oil production in late 1966 and in November, 1966, tested 100% water and was shut down. This response indicated that communication existed between injection well 2W2 and well 2-1, and, as a result, injection into well 2W2 was stopped in late 1966. Wells 2-3 and 2-5 continued to show increased fluid production but with an increasing percentage of water until early 1968 when production began to decline.

Recent injection profiles show that Well 2W2 will accept injection only into the upper portion of the pay interval while No. 2-1 will accept injection into parts of the entire interval.

In order to continue the most expeditious operations of the unit, it is proposed to shut down well 2-W-2 and convert well 2-1 to injection. This will allow us to continue the injection response in wells 2-3 and 2-5 with better distribution of injected fluid in the pay section. Wells 2-W-2 and 2-1 are structurally flat and both are below or near the oil-water contact of the field.

In view of these facts, we request your administrative approval of our application.

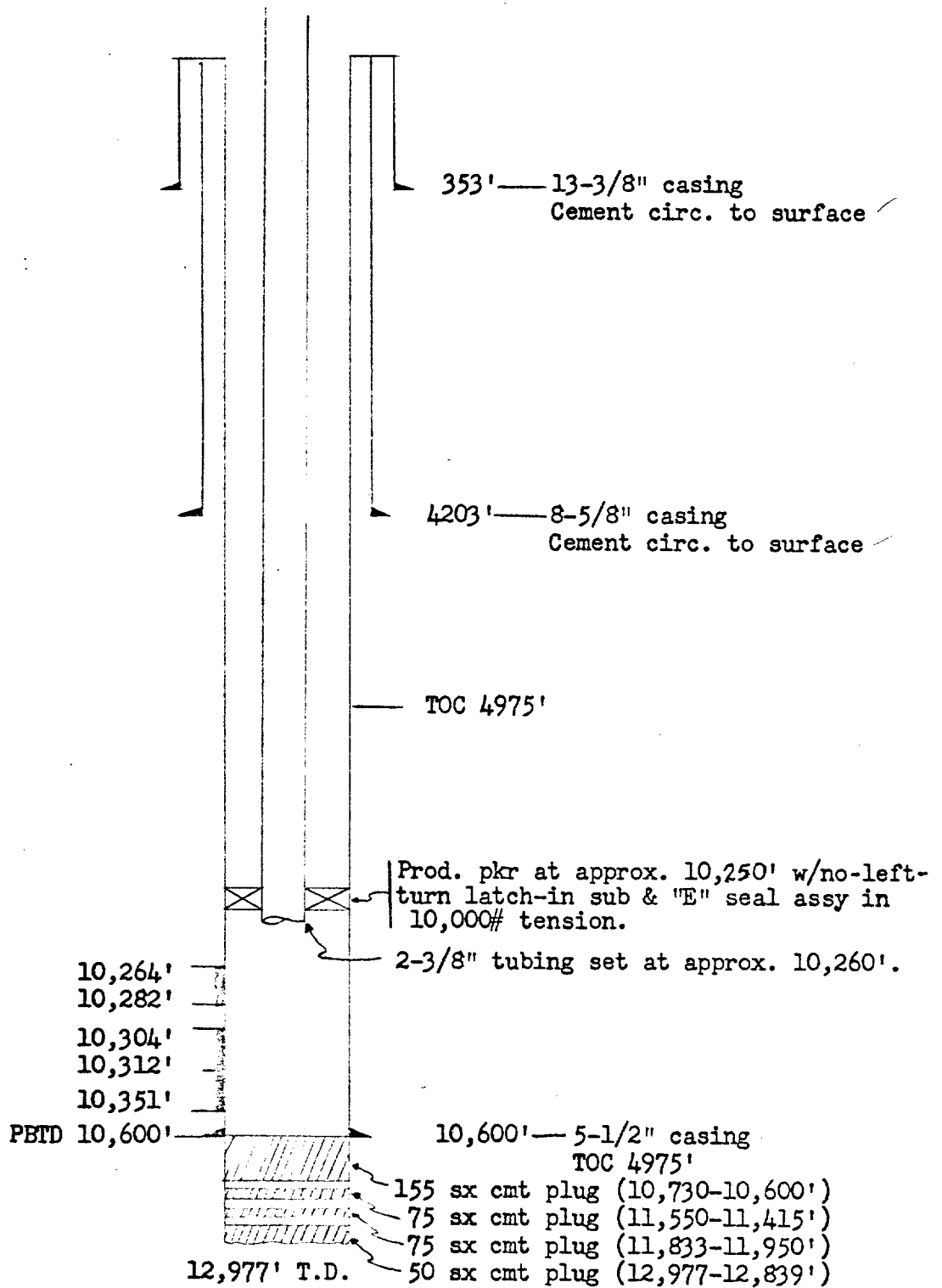
Very truly yours,


F. F. Lovering
Manager, Southwestern Region

BEB:lj
Attachment

WFX-304
Rough 7
DEC 23 1968

DIAGRAMMATIC SKETCH
PROPOSED INSTALLATION



Ranger Lake Unit
Well No. 2-1
Lea County, New Mexico

#2-1

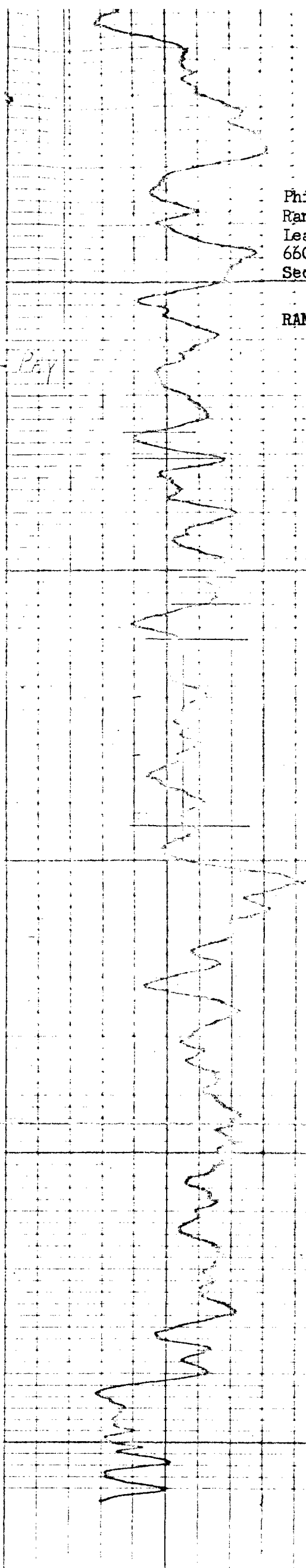
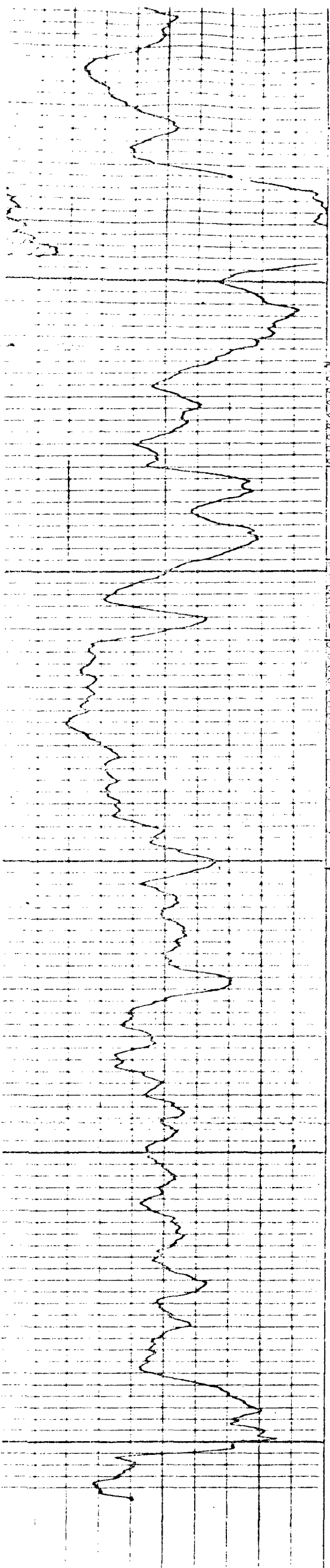
Phillips
Ranger Lake Unit 2-1
Lea County, New Mexico,
660' FSL, 660' FEL,
Section 23, T-12-S, R-34-E

RANGER LAKE PENN

Top P. 7

10300

10400



NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator		Pool		County									
Address		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input type="checkbox"/>									
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 BBLs.	GRAV. OIL	
Ranger Lake Unit Tr.2	1	P	23	14	34	5-24-65				0	11	25	2273
						10-20-65				166	55	33	600
						11-12-65				286	16	35	2188
						9-6-66				115	1	TSTM	---
						11-15-66				391	0	0	---
						12-1-66	Shut Down						

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)

(Title)

(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator		Pool		County												
Address		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Scheduled <input type="checkbox"/> Special <input type="checkbox"/>												
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATIONS	CHOKESIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
Ranger Lake Unit Tr. 2	3	J	23	12	34	9-5-64						0		28	133	4750
						5-28-65						0		17	79	4647
						10-6-65						38		29	25	862
						12-11-65						97		40	50	1250
						3-6-66						69		76	95	1250
						7-17-66						84		18	61	3389
						9-10-66						130		29	58	2000
						2-22-67						145		9	66	7333
					9-6-67						289		1	55	55000	
					8-1-68						141		23	NR		

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(Signature)

(Title)

(Date)

C-116
Revised 1-1-65

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(Signature)

(Title)

(Date)

December 17, 1968

Application to Convert Well and
Inject Water--Ranger Lake Unit
Tract 2 Well 1

File: W3-McC-651-68

Gordon M. Cone
P. O. Box 1148
Lovington, New Mexico

A. D. Jones Estate
Tatum, New Mexico

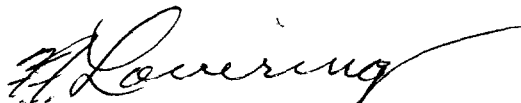
Gentlemen:

Attached is a copy of our application to the New Mexico Oil Conservation Commission to convert and inject water in our Ranger Lake Unit Tract 2 Well No. 1, Unit P, Section 23, T-12-S, R-34-E, Lea County, New Mexico.

This will serve as notification to you of our proposal, as required by regulations of the Commission.

Yours very truly,

PHILLIPS PETROLEUM COMPANY



F. F. Lovering
Manager, Southwestern Region

BEB:lj
Attachment

cc: N.M.O.C.C., Santa Fe, N. M.
N.M.O.C.C., Hobbs, N. M.



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79760
PHILLIPS BUILDING, FOURTH & WASHINGTON

EXPLORATION & PRODUCTION DEPARTMENT

January 6, 1969

Re: Ranger Lake Unit,
Tract 2, Well No. 1 -
Application to Convert
well and inject water

File: W3-McC-3-69

New Mexico Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. J.E. Kapteina

Dear Sir:

As requested in your letter of December 31, 1968, attached
are two additional copies of our subject application.

Yours very truly,

PHILLIPS PETROLEUM COMPANY

F. F. Lovering
F. F. Lovering

BEB/ep

Att. (2)

93 JAN 9 AM 8 21