

ROBERT D. FITTING & ASSOCIATES, INC.
Petroleum Engineering & Geological Consultants
MIDLAND, TEXAS 79701

August 7, 1972

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

Re: Carter Foundation Production Company,
Blaine-Cade Waterflood Expansion
Langlie-Mattix Pool
Lea County, New Mexico

Gentlemen:

Carter Foundation Production Company respectfully requests administrative approval to expand the referenced waterflood project by conversion to water injection two wells to be purchased from Texaco, Inc. The wells to be converted to injection are Nos. 1-G and 2-J, Section 35, Township 23-South, Range 37-East, on the E. E. Blinebry "B" Federal Lease.

As specified by Rule 701-B, we enclose:

- (1) A plat showing the location of the proposed injection wells and all other wells within a radius of two miles.
- (2) A Gamma Ray-Neutron Log of Texaco's E. E. Blinebry "B" Federal NCT-4, Well No. 1. No log is available for the No. 2 well.
- (3) A diagrammatic sketch showing available data on each of the proposed injection well completions and tubing and packer settings.
- (4) Water will be injected in open hole intervals into Penrose pay sands at approximately 3500'. Santa Rosa water from a well on the adjoining Carter Foundation Production Company, Blinebry Lease will be injected at an approximate rate of 300 barrels per day per well.

In accordance with Rule 701-E (5), the Bline-Cade Waterflood Project was approved by Commission Order No. R-3027 on January 13, 1966. Water injection was commenced in September 1966 in two wells. Oil stimulation occurred eight months later (May 1, 1967) after 201,700 barrels of water had been injected. Three new water injection wells were put in service in July 1967 and by December 1967 oil production was six times the April 1967 rate. An additional injection well was put in service in November 1968 and in a period of six months the oil producing rate had increased approximately 12-fold over the pre-stimulation rate. A production decline graph is attached to illustrate the performance history.

Cumulative oil production of the 14 producing wells in this project to May 1, 1967 was 633,320 barrels, with an estimated future primary oil recovery of 18,800 barrels, for a total of 652,120 barrels. As of June 1, 1972, the lease cumulative oil production was 931,716 barrels, which includes 279,596 barrels of secondary oil recovery. Copies of Form C-116, Gas-Oil Ratio Report, for March 1966 and 1972 showing production tests of all wells in the Bline-Cade Waterflood Project before and after stimulation by water injection are attached. Producing wells directly offset by the proposed injection wells are indicated on the reports.

This recovery is considered to establish substantial response to the present water injection pattern and should enable the Secretary-Director of the Commission to grant administrative approval for conversion to water injection of the two aforementioned wells.

Yours very truly,


Robert D. Fitting

RDF:jd

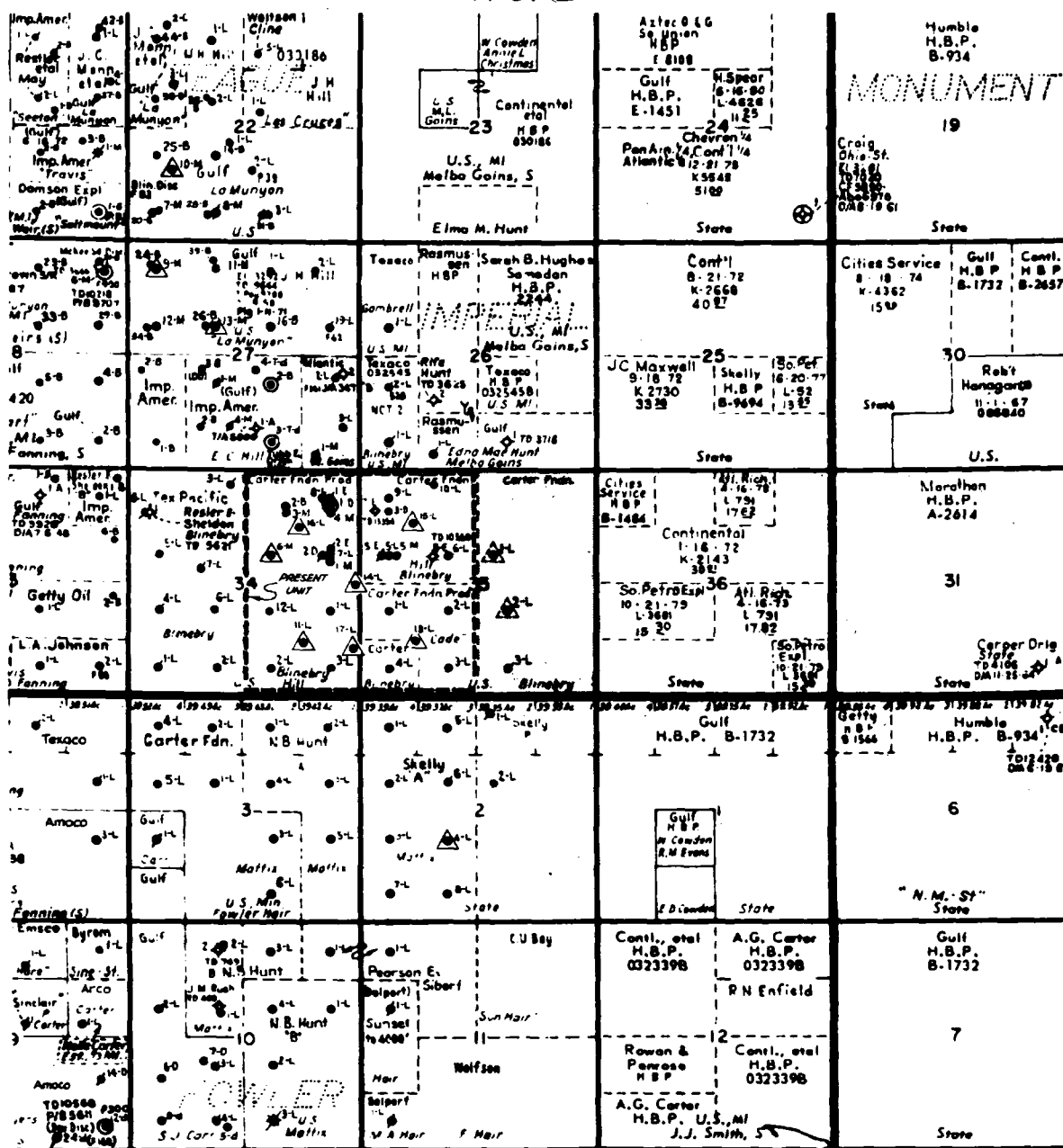
Encl -

cc: Texaco, Inc.
P. O. Box 3109
Midland, Texas 79701

Skelly Oil Company (Offset Operator)
P. O. Box 1351
Midland, Texas 79701

United States Department of the Interior
Geological Survey
P. O. Drawer 1857
Roswell, New Mexico 88201

R-37-E

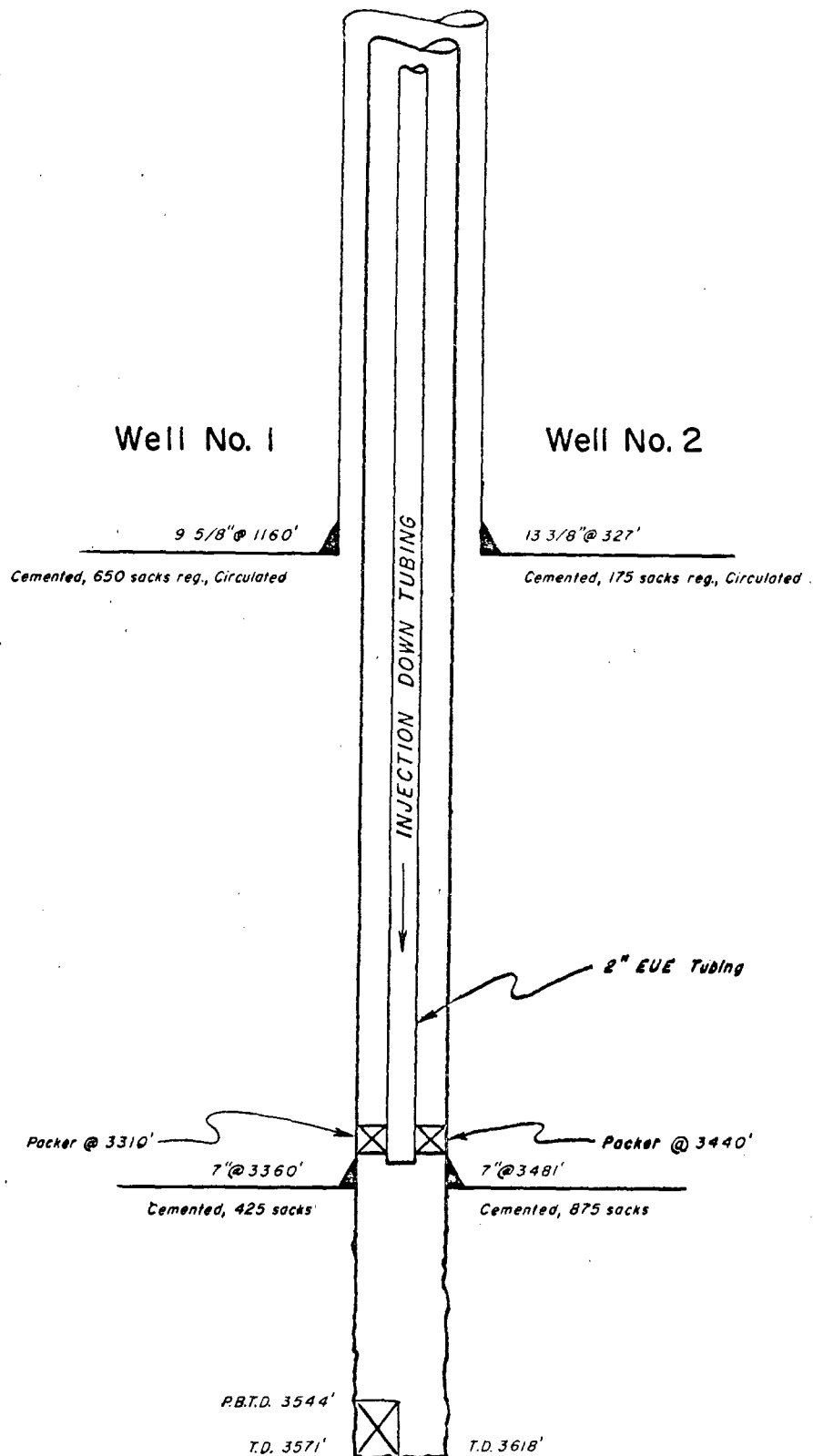


LANGLIE-MATTIX FIELD AREA
LEA COUNTY, NEW MEXICO
BLINE-CADE UNIT

LEGEND

- ^{1-L} Langlie-Mattix Producer
- ^{1-B} Blinebry Producer
- ^{1-T} Tubb Producer
- ^{1-D} Drinkard Producer
- ^{1-O} Devonian Producer
- ^{1-M} McKee Producer
- ^{1-E} Ellenburger Producer
- ▲ Water Injection Well
- ▲ Proposed Water Injection Well
- Proposed Unit Expansion





CARTER FOUNDATION PRODUCTION CO.

Blinebry - B - Federal Lease

LANGLIE MATTIX FIELD

Lea County, New Mexico

PROPOSED INJECTION WELL COMPLETION

NO SCALE

PREPARED BY ROBERT D. FITTING
& ASSOCIATES

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBBS OFFICE O. C. C.]

GAS-OIL RATIO REPORT 4 7 37 AM '66

OPERATOR Carter Foundation Production Company POOL Langlio-Mattin
 ADDRESS P. O. Box 900, Kernit, Texas MONTH OF March, 1966
 SCHEDULED TEST X COMPLETION TEST SPECIAL TEST (Check One)
 (See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Hindobry	1	3-12	CL	3/4	24	1	0	1.38	55.1 22.3 32.9	Output Input 23,766
	2	3-13	CL	2"Open	24	3	0	2.76	68.4 33.1 35.3	Output Input 12,790
	3	3-14	P	2"Open	24	5	1	5.17	9.6	1,857
	4	3-15	CL	2"Open	24	4	0	2.76	62.6 47.2 15.4	Output Input 5,579
	5	3-16	CL	2"Open	24	3	3	2.76	53.5 26.9 26.6	Output Input 6,927
	6	3-17	P	2"Open	24	6	3	4.75	19.6	4,126
	7	3-18	F	1/2	24	2	0	1.38	42.1	30,507
	8	3-19	F	3/4	24	2	0	1.38	47.1	34,130

offset to
proposed
injection well.

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 degrees F. Specific gravity base will be 0.60.

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 certify that the information given is true and complete to the best of my knowledge.)

Date March 31st, 1966

CARTER FOUNDATION PRODUCTION COMPANY
 By Reggie G. Guller
 Field Manager
 Title

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE O. C. C.

GAS-OIL RATIO REPORT APR 4 7 30 AM '66

OPERATOR Carter Foundation Production Company POOL Langlie - Mattie
 ADDRESS P. O. Box 900, Kermit, Texas MONTH OF March, 1966
 SCHEDULED TEST X COMPLETION TEST _____ SPECIAL TEST _____ (Check One)
 (See Instructions on Reverse Side)

Lease	Well No.	Date of Test 19 <u>66</u>	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Blindery	9	3-21	CL	2" Open	24	3	0	2.76	65.0 12.1 12.9	Output Input 15,513
	10	3-22	CL	2" Open	24	3	1	2.76	63.4 57.2 25.2	Output Input 9,492
	*11	3-24	P	2" Open	24	0	8.5	2.76	67.2	24,347
	12	3-23	P	2" Open	24	9	0	4.50	59.1	13,133
	*15	3-24	P	3/4	24	0	0	11.04	61.7	5,589
* 11 and 15 are new wells. Request allowable on basis of these tests.										
TOTAL							15.5	32.36	(Excl. #11 + 15 Wtr. Input)	

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 degrees F. Specific gravity base will be 0.60.

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 certify that the information given is true and complete to the best of my knowledge.)

Date March 31st, 1966

By Ray E. Gault
 Title Field Manager

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE O. C. C.

ILLEGIBLE

GAS-OIL RATIO REPORT APR 4 7 38 AM '66

OPERATOR..... Garrett Foundation Production Company POOL..... Langlois - MattinADDRESS..... P. O. Box 900, Kirtland, New Mexico MONTH OF..... March, 19... 66SCHEDULED TEST..... X..... COMPLETION TEST..... SPECIAL TEST..... (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Gado <i>offset to proposed injection well.</i>	1	3-15	P	2"Open	24	5	2.67	5.64	13.8	2,446
	2	3-16	CL	2"Open	24	3	5.25	4.50	122.9 117.8 5.1	Output Input 1,103
	3	3-17	P	2"Open	24	3	11.25	3.25	10.2	3,138
TOTAL -							18.17	13.39		

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 degrees F. Specific gravity base will be 0.60.

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 certify that the information given is true and complete to the best of my knowledge.)

Date..... March 21st, 1966By..... [Signature]By..... [Signature]Title..... Field Manager

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Foundation Production Company		Pool		Langclic-Mettix		County		103							
O. Box 900, Kermit, Texas 79745		TYPE OF TEST - (X)		Scheduled [X]		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 EBL.	GRAV. OIL	OIL BBL.		GAS M.C.F.
Linebry Federal C64118 offset to proposed injection well.	1	I	34	23	37	3-13-1972	P 2"Open	40	15	24	17	35.2	8.28	7.7	929
	2	O	34	23	37	3-15-1972	P 2"Open	40	12	24	7	35.2	11.04	12.3	1,114
	3	P	34	23	37	3-14-1972	P 2"Open	40	14	24	14	35.2	9.66	10.8	1,118
	4	M	35	23	37	3-16-1972	P 2"Open	40	13	24	14	35.2	8.28	8.6	1,039
	5	B	35	23	37	3-15-1972	P 2"Open	40	18	24	7	35.2	11.04	13.2	1,195
	6	F	35	23	37	3-14-1972	P 2"Open	40	14	24	8	35.2	12.42	17.7	1,425
	7	H	34	23	37	3-14-1972	P 2"Open	40	3	24	20	35.2	20.72	26.7	1,289
	8	A	34	23	37	3-15-1972	P 2"Open	40	30	24	10	35.2	11.04	16.9	1,531
	9	D	35	23	37	3-13-1972	P 2"Open	40	40	24	10	35.2	15.51	21.4	1,379
	10	C	35	23	37	3-15-1972	P 2"Open	40	36	24	10	35.2	20.70	26.0	1,255
	12	J	34	23	37	3-17-1972	P 2"Open	40	17	24	10	35.2	9.66	11.3	1,169
									TOTAL			127		138.35	

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.

Lester Magallon
Field Manager
(Signature)
March 28, 1972
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-1116
Revised 1-1-65

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS RA CU.F.	
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.
ade Federal 034711 <i>Offset to proposed injection well.</i>	1	L	35	23	37	3-14-1972	P	2" Open	40	20	35.3	15.51	27.9	1,799
	2	K	35	23	37	3-15-1972	P	2" Open	40	13	35.3	13.02	12.6	967
	3	N	35	23	37	3-16-1972	P	2" Open	40	15	35.3	15.51	14.1	930
										48			44.04	
									TOTAL					

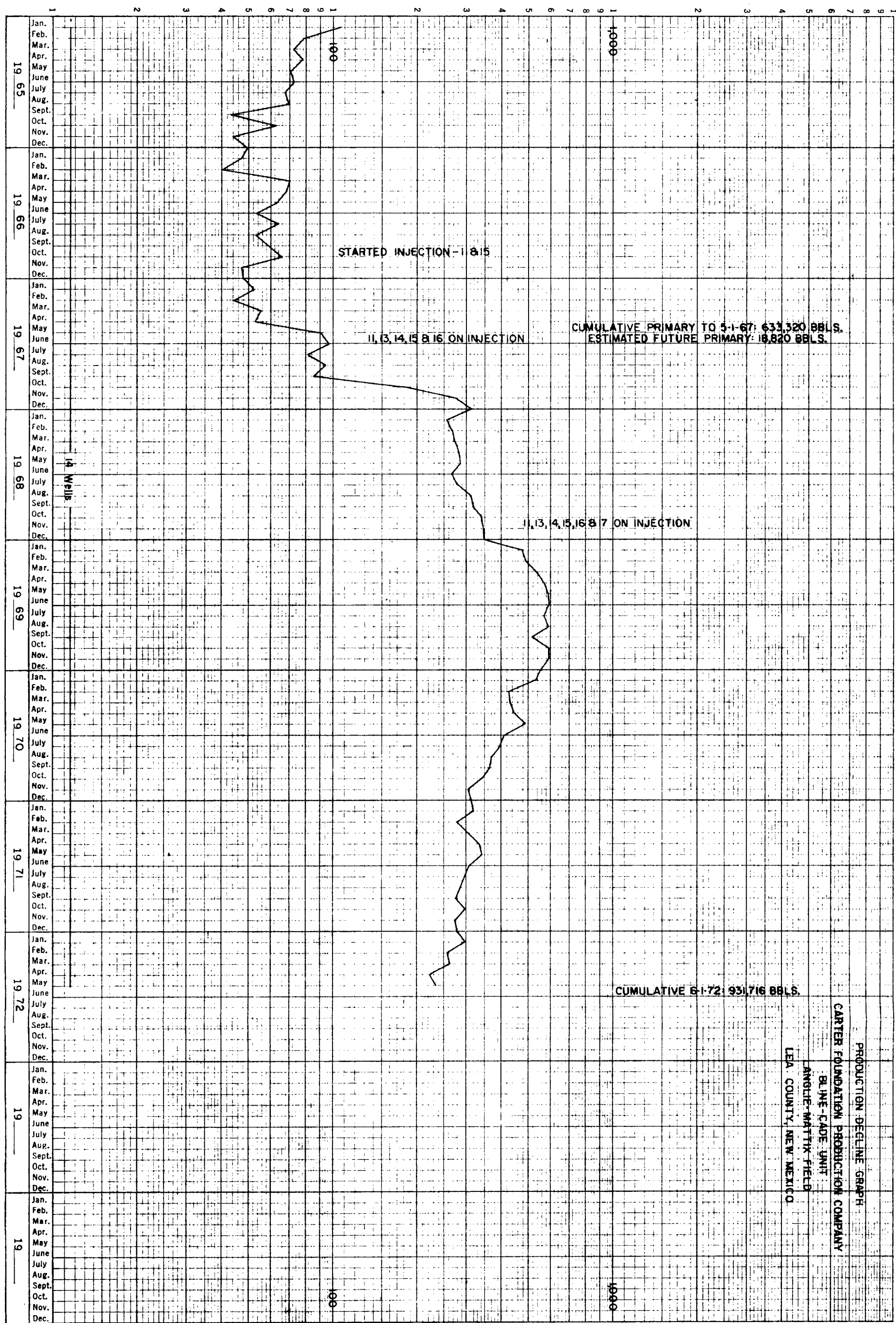
I hereby certify that the above information is true and complete to the best of my knowledge and belief.

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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.

Deaton J. Agendia
(Signature)

Field Manager

March 23, 1972

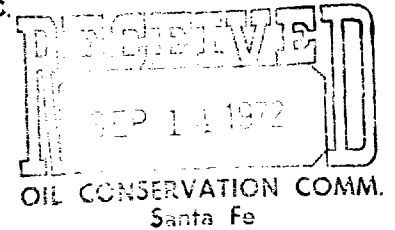


ROBERT D. FITTING & ASSOCIATES, INC.

Petroleum Engineering & Geological Consultants

MIDLAND, TEXAS 79701

September 12, 1972



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

Re: Administrative Order No. WFX-376
Carter Foundation Production Company,
Blaine-Cade Waterflood Expansion,
Langlie-Mattix Pool,
Lea County, New Mexico

Gentlemen:

Please note the captioned order does not show the correct wells for conversion to water injection as requested in our application of August 7, 1972. The application requested approval to inject water into the E. E. Blinbry "B" Federal Nos. 1-G and 2-J, Section 35, Township 23-South, Range 37-East, formerly operated by Texaco, Inc. Order No. WFX-376 listed Nos. 6-F and 2-K in said Section 35, which are the west offsets to the proposed injection wells. We are returning the original and corrected order for the necessary changes.

Yours very truly,

Robert D. Fitting

RDF:jd

Encl -

cc: Mr. Carter Magendie
Carter Foundation Production Company
P. O. Box 900
Kermit, Texas 79745

Mr. Walter Claer
Carter Foundation Production Company
P. O. Box 1036
Fort Worth, Texas 76101