

GRARIDGE CORPORATION

IBEX BUILDING

BRECKENRIDGE, TEXAS

POST OFFICE BOX 752

MAIL OFFICE OCC

SEP 24 1960

September 14, 1960

WFX - 52

*Waiting period
New State CCH*

Oil Conservation Commission
State of New Mexico
State Capitol Building
Santa Fe, New Mexico

Re: Application for Administrative
Approval to Convert One Well
To Water Injection Well in
North Caprock Queen Unit No. 1
Lea and Chaves Counties

Gentlemen:

In accordance with Commission Order No. R-972-B, issued on August 6, 1958, Graridge Corporation as Unit Operator respectively request administrative approval to convert the following well to a water injection well:

<u>WELL NO.</u>	<u>LOCATION</u>
8-6	SE/4, NW/4, Section 8, T13S, R32E

The following data pertinent to the proposed expansion are given.

(1) The proposed injection well is directly offset by a producing well which has shown response to the waterflood project. See attached Form C-116 and Exhibit No. 1.

(2) The well requested has been completed in the following manner:

The well was drilled to a total depth of 3075'. 8-5/8" casing is set at 277' and cemented with 150 sacks, cement circulated. 5-1/2" casing is set at 3024' and cemented with 500 sacks. The hole was cleaned out to 3075', logged, and 2828' of 4-1/2" liner run and cemented at 3050' with 15 sacks. Water will be injected into open hole interval from 3050' to 3075'.

(3) Exhibit No. 2 indicates present injection well data. It is evident that some of the injection wells are not as receptive to water injection as others, thus, it is desirable to place wells on injection as

September 14, 1960

early as responses warrant in order to maintain flood balance.

(4) Exhibit No. 3 gives performance curves of the overall water flood project.

Graridge Corporation is requesting the State Engineers Office to waive its requirement of placing tubing and packer in this injection well as only fresh water will be injected into it. They offered no objection to this procedure when approval was granted for converting well Nos. 7-14, 7-8, 8-4, and 8-12.

Copies of this application are being sent to Ambassador Oil Corporation and to Great Western Drilling Company as they are offset operators to the proposed expansion. We are submitting waivers to each and will forward these to the commission as soon as possible.

Any consideration by the Commission in expediting this matter will be greatly appreciated.

Yours very truly,

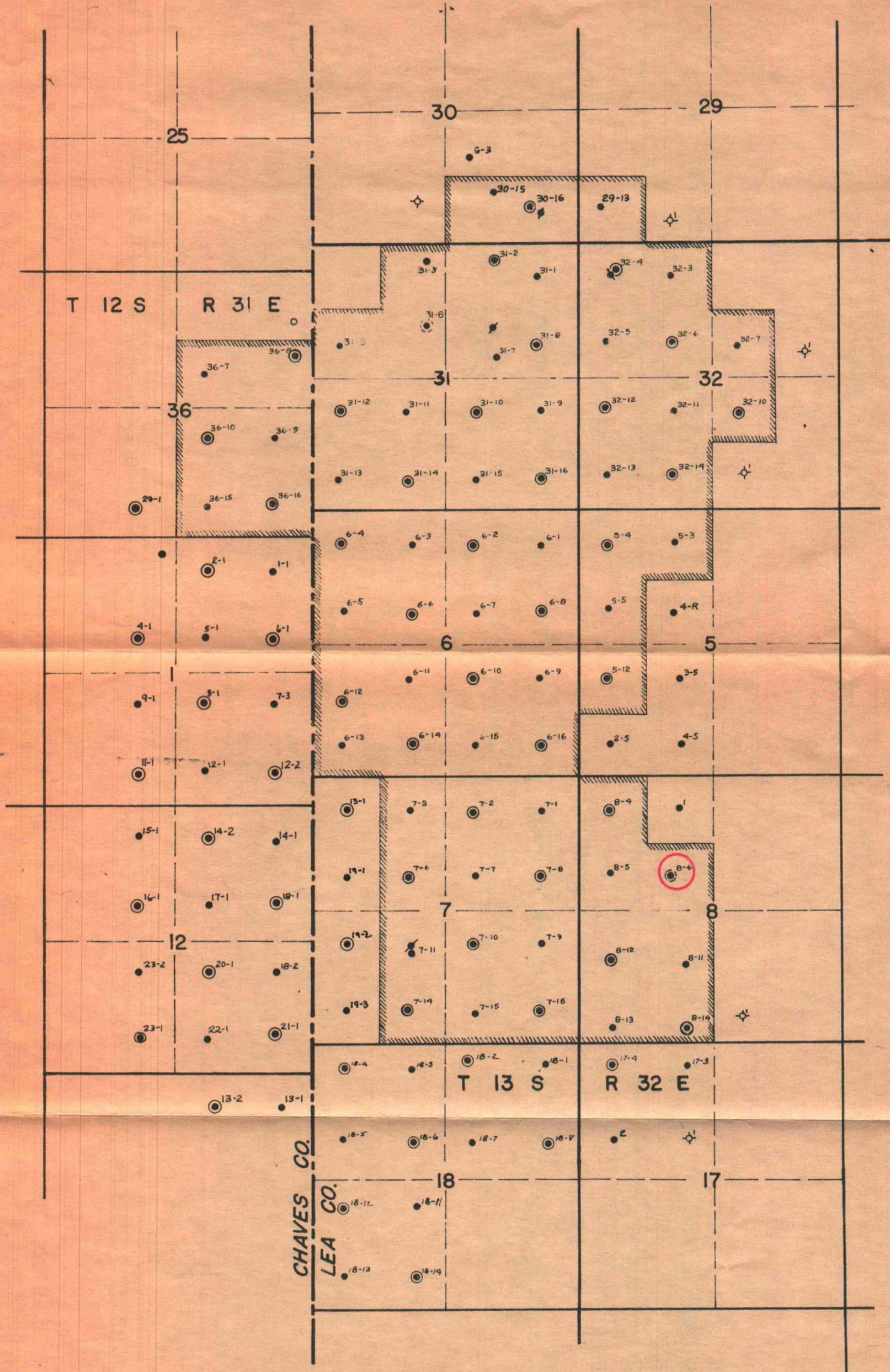
GRARIDGE CORPORATION



B. G. Harrison
Manager of Secondary Recovery

SHL/BGH:vl
Attachments

cc: Oil Conservation Commission, Hobbs
Mr. Frank Irby
Mr. Paul Holloway
Mr. Cliff Chapman
Graham Office



NORTH CAPROCK QUEEN
 UNIT NO. 1
 CHAVES & LEA COUNTIES, NEW MEX.
 SCALE: 1" = 2000'

● PRESENT INJECTION WELL
 ○ PROPOSED INJECTION WELL

EXHIBIT NO. 1

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Granidge Corporation POOL Caprock Queen
 ADDRESS Box 752, Breckenridge, Texas MONTH OF September, 19 60
 SCHEDULED TEST..... COMPLETION TEST..... SPECIAL TEST X..... (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	
BEFORE WATERFLOOD RESPONSE										
North Caprock Queen Unit #1	8-5	7-10	Pump		24	2	0	1	TSTM	TSTM
AFTER WATERFLOOD RESPONSE										
North Caprock Queen Unit No.	8-5	9-4	Pump		24	2	0	6	TSTM	TSTM

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 September 14, 1960

Granidge Corporation
 Company
 By S. H. Lindley, Jr.
 S. H. Lindley, Jr.
 Engineer
 Title

GRARIDGE CORPORATION

MONTHLY WATER FLOOD REPORT

Injection Well Data

Project: Cap Unit

Month: August, 1960

Lease & Well No.	Total Water Input		Injection Pressure	Cumulative Input
	Month	Avg./Day		
Cap Unit 5-4	7,025	226	995	450,982
5-12	4,561	147	930	95,421
6-2	5,782	187	1000	496,197
6-4	4,602	149	1000	138,384
6-6	3,658	115	1000	110,414
6-8	10,228	330	1000	340,948
6-10	4,961	160	1180	62,320
6-12	14,434	466	1100	301,136
6-14	15,412	498	700	265,598
6-16	3,420	110	1200	71,110
7-2	7,149	230	1200	115,528
7-6	4,401	142	1100	64,397
7-8	5,757	186	1200	32,185
7-10	7,718	249	1200	45,854
7-14	19,934	644	700	250,911
7-16	9,427	304	1200	55,423
8-4	5,088	164	1200	31,162
8-12	2,820	91	1200	6,702
8-14	19,295	623	1050	44,688
30-16	11,697	378	600	194,918

GRARIDGE CORPORATION

MONTHLY WATER FLOOD REPORT

Injection Well Data

Project: Cap Unit

Month: August, 1960

Lease & Well No.	Total Water Input		Injection Pressure	Cumulative Input
	Month	Avg./Day		
Cap Unit 31-2	9,815	364	530	291,897
31-8	13,678	471	920	342,290
31-10	13,377	431	320	505,694
31-12	14,993	483	835	321,310
31-14	5,784	186	1010	155,675
31-16	13,806	446	670	573,821
32-4	294	9	1010	78,612
32-6	16,548	534	1005	274,770
32-10	1,664	69	1010	78,280
32-12	13,948	450	1010	275,314
32-14	11,263	363	1005	303,775
36-8	11,488	410	480	158,294
36-10	7,822	252	1010	133,027
36-16	14,050	453	1015	314,545
Totals (34)	315,899	10,320	959 (avg)	6,971,582

WATER INJECTED, BBL/MO

OIL PRODUCTION, BBL/MO

GRARIDGE CORPORATION
 NORTH CARROCK QUEEN UNIT
 EA & CHAVES COUNTIES, NEW MEXICO
 PERFORMANCE CURVES

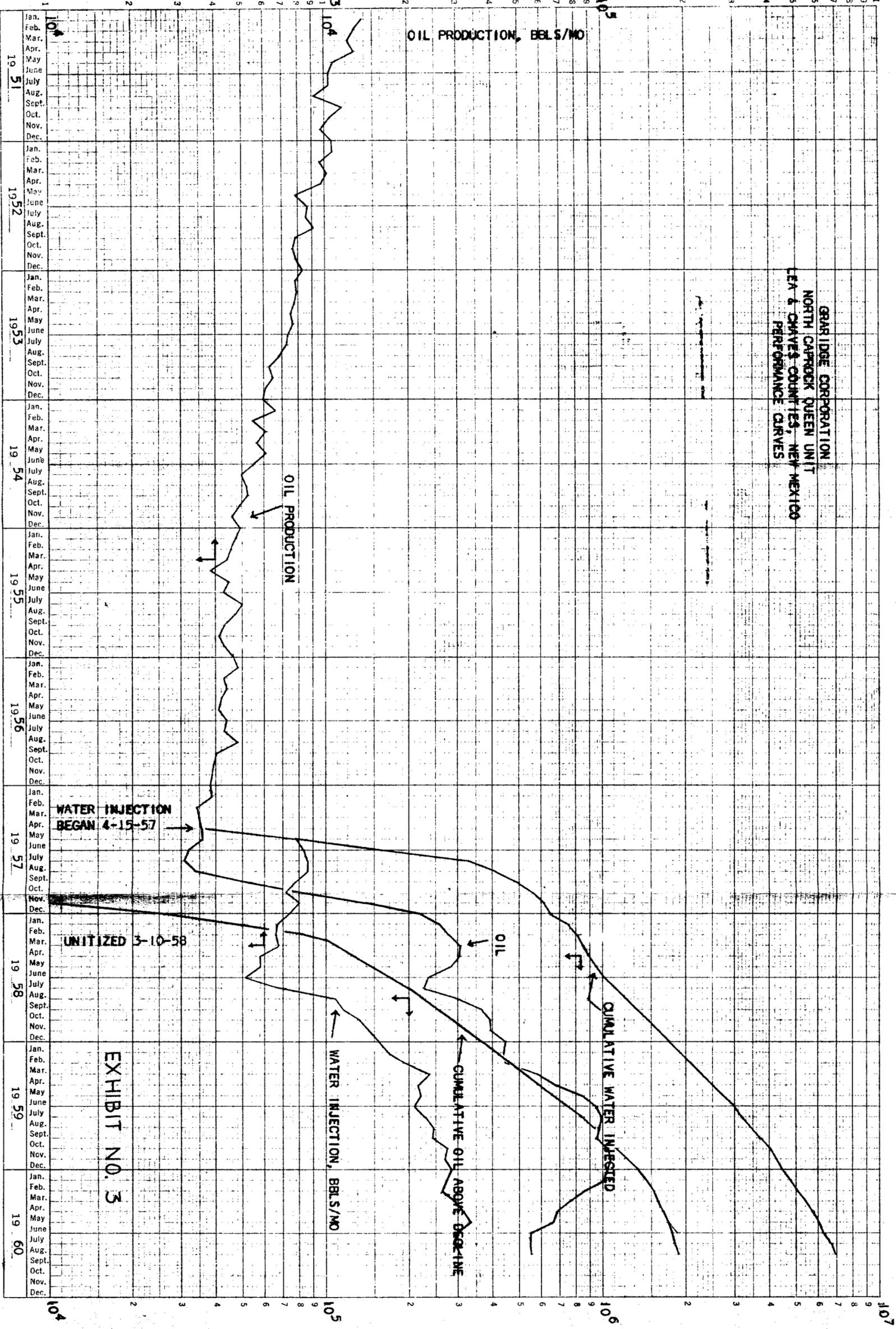


EXHIBIT NO. 3

CUMULATIVE OIL ABOVE DECLINE AND CUMULATIVE WATER INJECTED, BBL

GRARIDGE CORPORATION

IBEX BUILDING

POST OFFICE BOX 752

BRECKENRIDGE, TEXAS

SEP 15 1960

September 14, 1960

Ambassador Oil Corporation
P. O. Box 9338
Fort Worth, Texas

Gentlemen:

It is the desire of Graridge Corporation to expand the water injection program in the North Caprock Queen Unit No. 1 Flood in Lea and Chaves Counties, New Mexico. The expansion is to include the following well.

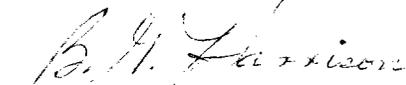
WELL NO.
8-6

LOCATION
SE/4, NW/4, Section 8, T13S, R32E

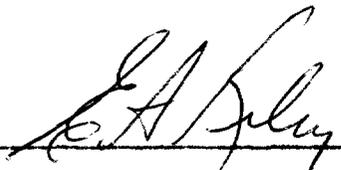
If your company has no objection to the proposed expansion, please sign and return one copy of this letter to this office.

Yours very truly,

GRARIDGE CORPORATION



B. G. Harrison
Manager of Secondary Recovery

SIGNED BY: 

FOR: AMBASSADOR OIL CORPORATION

SHL/BG:vl

cc: Graham Office

GRARIDGE CORPORATION

IBEX BUILDING

POST OFFICE BOX 752

BRECKENRIDGE, TEXAS
 MAIN OFFICE OGC

1960 OCT 15 PM 1:25
 September 14, 1960

Date Received		SEP 30 1960	
ROUTE TO		ROUTE TO	
	DATE CHECKED		DATE CHECKED
LC			
OHR		CRA	
TAF			
FPD		BGN	
WFB			
BGH	10/4		
Mail To:		FILE:	
Graham		Velma	

Great Western Drilling Company
 P. O. Box 1639
 Midland, Texas

Gentlemen:

It is the desire of Graridge Corporation to expand the water injection program in the North Caprock Queen Unit No. 1 Flood in Lea and Chaves Counties, New Mexico. The expansion is to include the following well.

<u>WELL NO.</u>	<u>LOCATION</u>
8-6	SE/4, NW/4, Section 8, 13S,R32E

If your company has no objection to the proposed expansion, please sign and return one copy of this letter to this office.

Yours very truly,

GRARIDGE CORPORATION

B. G. Harrison
 B G Harrison
 Manager of Secondary Recovery

SIGNED BY: *John J. Hampton*
 FOR: Great Western Drilling Company

SHL/BGH:vl

cc: Graham Office

MAIN OFFICE 800



390 SEP 21 11 37 AM '60 STATE OF NEW MEXICO

STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

September 20, 1960

ADDRESS CORRESPONDENCE TO:
P. O. BOX 1079
SANTA FE, N. M.

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

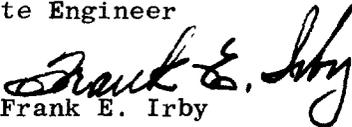
Dear Mr. Porter:

Reference is made to the application of Graridge Corporation dated September 14, 1960 seeking administrative approval to convert one well to water injection well in the North Caprock Queen Unit No.1. The specific well being referred to is 8-6 located in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 8, Township 13 South, Range 32 East.

Since fresh water only is to be injected through the well, it appears there will be no threat of contamination to the fresh waters which may exist in the area. Therefore, this office offers no objection to the granting of this application so long as fresh water only is injected through the well, but recommends that the matter be reconsidered at anytime that non-potable water is injected, or proposed to be injected. This recommendation that the matter be reconsidered at anytime that non-potable water is to be injected goes also to those wells on which we previously granted waivers, to wit, Nos. 7-14, 7-8, 8-4 and 8-12.

Very truly yours,

S. E. Reynolds
State Engineer

By: 
Frank E. Irby
Chief
Water Rights Division

FEI/ma
cc-F. H. Hennighausen
Graridge Corp.