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November 3, 1958

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

> RE: Application For Administrative Approval to Convert Three (3) Unit Wells to Water Injection Wells In North Caprock Queen Unit No. 1 - Located in Lea and Chaves Counties, New Mexico

### Gentlemen:

In accordance with Commission Order No. 972-B issued on August 6, 1958, Gravidge Corporation as Unit Operator respectfully requests administrative approval to convert the following wells to water injection wells:

UNIT NO.	<u> </u>
32-4 32-6	NW/4 NW/4 Sec. 32, T-12-S, R-32-E SE/4 NW/4 Sec. 32, T-12-S, R-32-E
32-10	MN/4 SE/4 Sec. 32, T-12-5, K-32-K

The following data pertinent to the proposed expansion are presented as support for the above request:

- Each proposed injection well is directly offset by a (130 producing well which has shown response to the water flood project. (See attached Form C-116 and Exhibit No. 1).
- Embibit No. 2 indicates present injection well data. (2) It is evident that some of the injection wells are not as receptive to water injection as others therefore, it is desirable to place wells on injection soon after waterflood response is noted in order to maintain flood balance.
- Exhibit No. 3 gives performance curves for the overall waterflood project.
- One (1) of the subject wells, No. 32-10 has been conditioned for water injection. Preparations are being made to commence workover operations on the ; remaining two (2) proposed injection wells. These operations should be complete or near completion at the time that administrative approval proceedings have been completed.

Attached Exhibit No. 1 indicates all offset operators and all injection wells in both North Caprock Queen Units Nos. 1 and 2 as is required by Order No. 2-972-B.

Copies of this application are being seat to Ambassader Oil Corporation and Great Western Drilling Company as they are offset operators to the proposed expansion. We are submitting waiver letters to the offset operators and will forward these to the Commission as soon as possible.

The cooperation of the Commission in this matter will be greatly appreciated.

Yours very truly,

GRARIDGE CORPORATION

B. G. Harrison

Manager of Secondary Recovery

BGR/ect cc:

# LARGE FORMAT EXHIBIT HAS BEEN REMOVED AND IS LOCATED IN THE NEXT FILE

# EXBIBIT NO. 2

### GRARIDGE CORPORATION

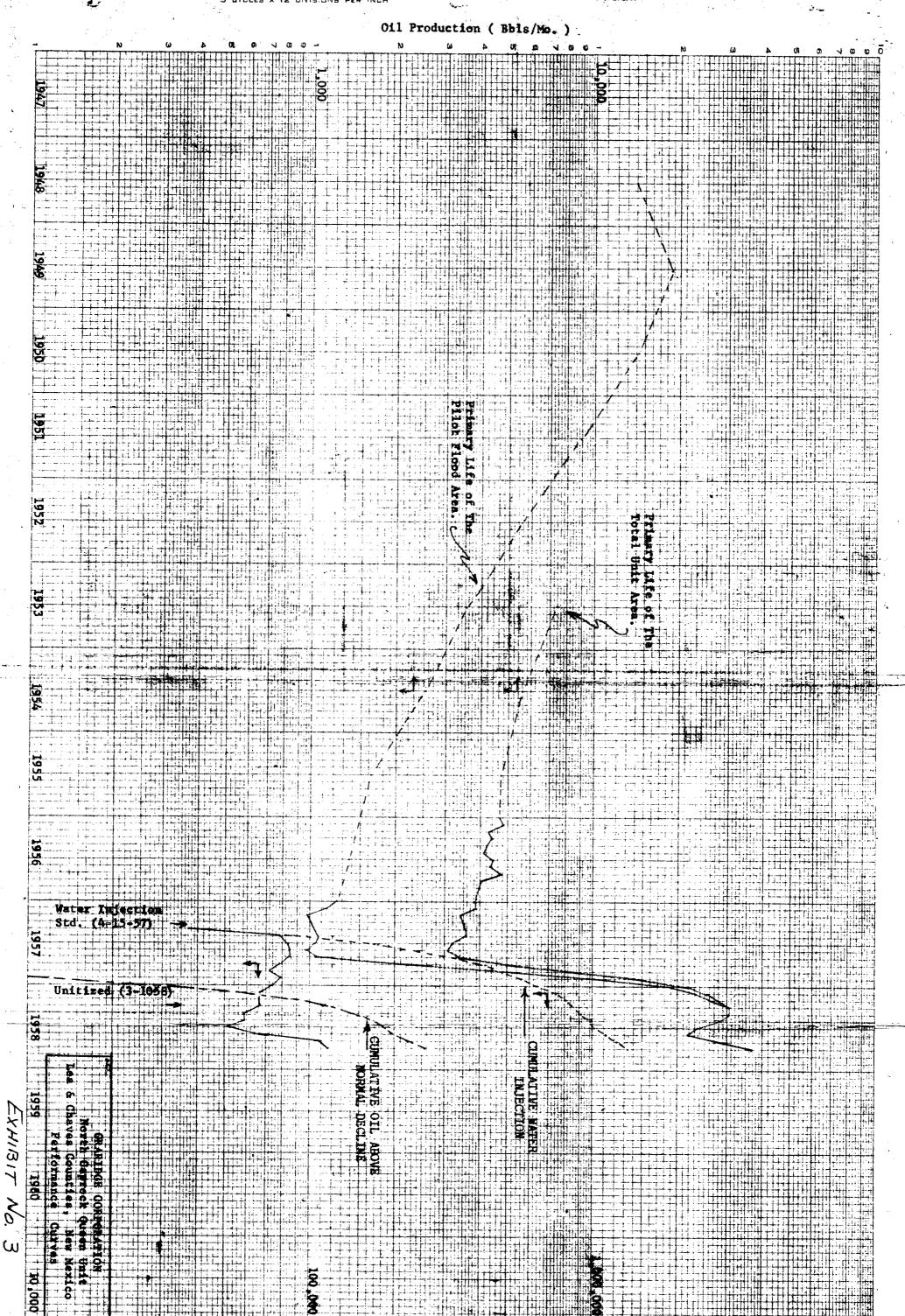
# Monthly Water Flood Report

# Injection Well Data

Pr	oject:	Caprock Q	een Uni	it No. 1	Month:	September, 1958
					Field:	Caprock Queen
					Formation:_	Queen Sand
	ease &		Avg/ Day.	B/D/ Ac-Ft.	Injec∽ tion Pressure	Cumulative Input
Uz	iit 31∘2	14505	484	0.61	0#	28,859
	31-8	14,863	495	0.52	400 <b>f</b>	30,673
	31-10	15,272	509	0.64	<b>64</b>	254,152
	31-14	2,513	84	0.11	1000#	66,519
	31-16	15,050	502	0.63	<b>5</b> 40 <b>#</b>	273,047
	32-12	10,899	364	0.46	980&	22,850
	32-14	7,371	246	0.31	1000#	17,544
	6-2	15,698	524	0.66	680#	265,688
	6-8	9,228	308	0.39	900#	138,366
	5-4	12,240	408	0.51	660₽	241,110
:	(10)	117,639	3924	0.49	616 Avg.	1,338,808

MOTE:

All wells indicated in red in Embibit No. 1 were not on injection on Oztober 1, 1958, but were approved by OCC as water injection wells. All wells with the exception of No. 6-12 have been placed on injection during Oztober, 1958. Various operational difficulties have prevented placing well No. 6-12 on injection.



Water Injected (Bbls/No.)
Cumulative Oil Produced & Water Injected, bbls.

# NEW MEXICO OIL CONSERVATION COMMISSION

# **GAS-OIL RATIO REPORT**

uste submice		Unit I secord 	sace vith		sion Gra				ring Test	COR
Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Water Bbls.	Oil Bbls.	Gas MCF	GOR Cu. Ft. Per Bbl.
acth Csprock										•
ance Cole I		10-22-	58 Rices	**	24	34	0	41	TSTH	đi
	32-11	16-12-	58 Rwy	₩	24	35	0	27	TSTM	456
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	1	<u> </u>	1		1.				<u>                                     </u>	

### **INSTRUCTIONS**

Mail original to Oil Conservation Commission, Santa Fe, New Mexico, and one copy to District Office, Hobbs, New Mexico.

This report shall be mailed to the Commission on or before the 15th of the month following the period in which the well is scheduled to be tested. The ratios, as reported, shall become effective for proration purposes the first of the month following the end of the period in which the test is scheduled to be made. Failure to make the required test and report will be penalized as the Commission's Regulations provide.

Under "producing methods," show flowing, pumping, or gas lift; under "hours," show the duration of the test in hours, which includes all time the well is open for production of oil or gas during the 24-hour test period. The allowable is the daily allowable for the well at the time of test.

METHOD OF TESTING: Produce each well in the normal operating manner and the customary production rate and measure all gas, oil and water produced during 24 hours.

MEASUREMENTS: To be made in accordance with Rule 301. In computing the gas-oil ratio on gas lift wells, input is subtracted from output to obtain net gas volume.

PRESSURE BASE: 15.025 lbs. per sq. in., Specific Gravity .70. Temperature 60° F.

### NEW MEXICO OIL CONSERVATION COMMISSION

# GAS-OIL RATIO REPORT

Grantify Total Pool

Caprosk Queen

ADDRESS	<b>5</b> 2 <sub>5</sub> Br	'ecenic	idas Tex	123	MON	TH OF			•••••	, <sub>19</sub> 58
SCHEDULED TESTCOMPLE			FION TEST			SPECIAL TEST			(Check One	
Morth Caprock Tests prior to				vetat il	eod.					
						Daily	Production During Test			GOR
Lease	Lease Well Date of Producing Choke No. Test Method Size	Test Hours	Allowable Bbls.	Water Bbls.	Oil Bbls.	Gas MCF	Cu. Ft. Per Bbl.			
Kotil Gaprock Quaer Hait 1	32-5	8-45-5	8 Puny	: *	24	4	0	4	TSTA	586
	32-13	G 1 2-		<b>少刊等</b>	24	<b>35</b>	g.	3	TSTM	8
ı								<b>,</b>		

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	Brownbox 3, 1966	GRAKIDON COMPORATION
		By A. Harring
		By G. G. Carrison  Manager of Secondary Recessor

Title