



R. C. TUCKER, PRES.

March 1, 1960

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

Oil Conservation Commission  
Mabry Building  
Santa Fe, New Mexico

RE: Application for Administrative Approval for Conversion  
of Two Unit Wells to Water Injection Wells, North  
Central Caprock Queen Unit, Lea and Chaves Counties,  
New Mexico

Gentlemen:

As provided in the Oil Conservation Commission Order No. R-1311, Great Western Drilling Company, as operator of the North Central Caprock Queen Unit, requests Administrative Approval for the conversion of the following Unit wells to water injection wells:

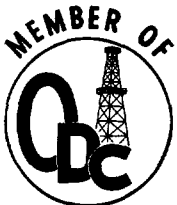
<u>Unit Well No.</u>	<u>Location</u>
14-2	NW/4 of NE/4 of Section 14, T-13-S, R-31-E
19-4	NW/4 of NW/4 of Section 19, T-13-S, R-32-E

Well No. 14-1, an east offset to the proposed injection Well No. 14-2, has received response to water injection since February 16, 1960. The tests measured seven barrels on February 10, 1960, and 49 barrels per day on February 28, 1960. A request for allowable increase has been made to the New Mexico Oil Conservation Commission.

Well No. 18-13, a north offset to the proposed Well No. 19-4, has received response to water injection and increased its production from 12 barrels per day February 6, 1960, to 30 barrels per day as measured February 21, 1960.

As provided in Order No. R-1311, Great Western Drilling Company applies for expansion of the North Central Caprock Queen Unit by reason of the conversion of Well No.'s 14-2 and 19-4.

We respectfully submit that the ultimate recoverable oil from the Caprock Queen Reservoir will be lessened and that waste will occur due to an



Oil Conservation Commission  
March 1, 1960  
Page 2

unbalanced condition in the flooding pattern unless Well No.'s 14-2 and 19-4 are converted to water injection at this time.

Attached to this application are: The C-116 of Great Western Drilling Company's Well No.'s 14-1 and 18-13 showing stimulation; a plat of the area showing all producing and water injection wells as well as the proposed injection wells and offset operators.

Waivers from the offset operators are being requested at this time, and these waivers will be forwarded to the Commission at such time as they are executed so as to decrease the required 15 day interim period set up by the Commission order for administrative expansion.

Yours very truly,

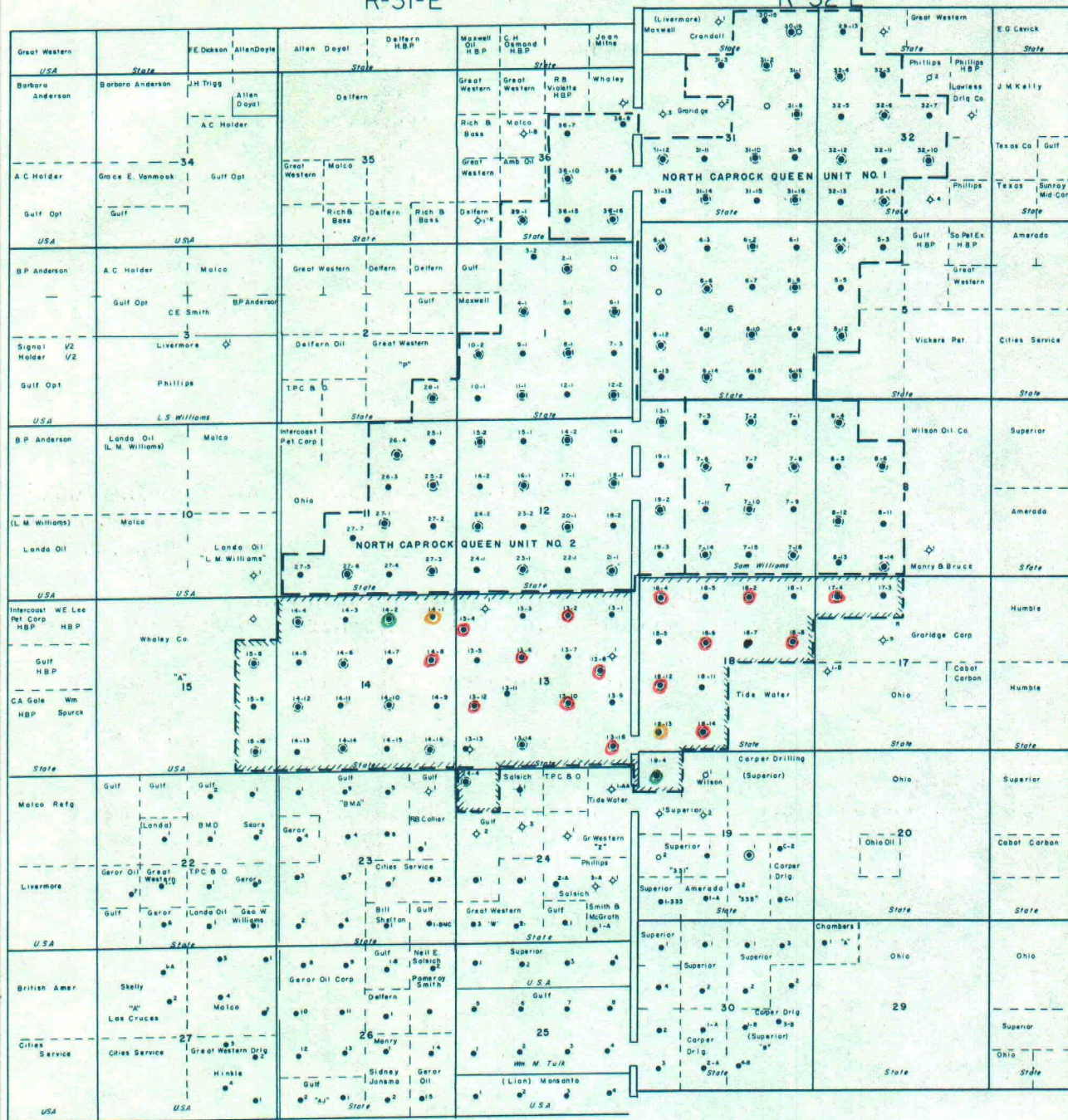
GREAT WESTERN DRILLING COMPANY

  
O. H. Crews  
General Superintendent

OHC:amh  
Enclosures

R-31-E

R-32-E



T-12-S

T-13-S

# NORTH CENTRAL CAPROCK QUEEN UNIT

OPERATED BY  
GREAT WESTERN DRILLING COMPANY

CAPROCK QUEEN POOL  
LEA AND CHAVES COUNTIES, NEW MEXICO



## LEGEND

- Producer
- ⊙ Injection well
- ⊙ Proposed injection well
- ◇ Dry hole

- Present Injection Wells
- Proposed Injection Wells
- Water Flood Newly Stimulated



NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR.....Great Western Drilling Company..... POOL.....Caprock Queen.....  
ADDRESS.....P. O. Box 1659, Midland, Texas..... MONTH OF.....February....., 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	
Tract 19	14-1	2-28	Pump		24	7	0	49	TSTM	
Tract 5	18-13	2-21	Pump		24	4	0	30	TSTM	
These wells produced their daily allowable as above in January and early February, 1960.										

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 1, 1960.....  
.....Great Western Drilling Company.....  
By.....*O. H. Crews*.....(O. H. Crews)  
.....General Superintendent.....  
Title

GOVERNOR  
JOHN BURROUGHS  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
MURRAY E. MORGAN  
MEMBER



STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY DIRECTOR

P. O. BOX 871  
SANTA FE

March 7, 1960

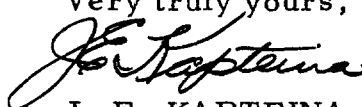
Great Western Drilling Company  
Box 1659  
Midland, Texas

Attention: Mr. O. H. Crews

Re: Application for Administrative  
approval for conversion of two  
Unit Wells to Water Injection  
Wells, North Central Caprock  
Queen Unit.

Gentlemen:

Reference is made to your application of March 1, 1960,  
for administrative approval to convert wells 14-2 and 19-4 to water  
injection wells. As in January, you failed to include with your appli-  
cation the required form C-116 showing production tests of Wells  
14-1 and 18-13 before stimulation by water flooding. Subject appli-  
cation will be placed on waiting period upon receipt of said omitted  
forms.

Very truly yours,  
  
J. E. KAPTEINA  
Engineer

JEK/og

Please find attached, requested forms.

O. H. Crews

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Great Western Drilling Company POOL Caprock Queen  
ADDRESS P. O. Box 1659, Midland, Texas MONTH OF January, 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	
Tract 19	14-1	1-15	Pump		24	7	0	7	TSTM	
Tract 5	18-13	1-16	Pump		24	4	0	4	TSTM	
The above tests were made before wells 14-1 and 18-13 had been stimulated by waterflood.										

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 10, 1960 Great Western Drilling Company  
By O. H. Crews (O. H. Crews)  
General Superintendent  
Title



WFL - 31  
Housing Units  
Hawes secured

R. C. TUCKER, PRES.

March 10, 1960

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Enclosed please find the waivers of all Offset Operators to Great Western Drilling Company's request to expand the North Central Caprock Queen Unit by converting Wells No. 14-2 and 19-4 to water injection wells.

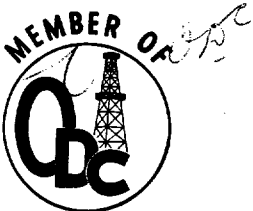
Yours very truly,

GREAT WESTERN DRILLING COMPANY

*O. H. Crews*

O. H. Crews  
General Superintendent

CHC:amh  
Enclosures





R. C. TUCKER, PRES.

March 1, 1960

OPERATIONS	
MAR 3 1960	
<input checked="" type="checkbox"/> Exec:	_____
<input type="checkbox"/> Prim:	_____
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<input checked="" type="checkbox"/> Adm:	_____
<input type="checkbox"/> Prod:	_____
<input type="checkbox"/> Mats:	_____
<input type="checkbox"/> Per:	_____
<input type="checkbox"/> FILE:	_____

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

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

Gentlemen:

We have requested expansion of the North Central Caprock Queen Unit under the system for administrative approval as set forth in the Oil Conservation Commission Order No. R-1311. A copy of our application is attached.

If you have no objection to this application for the expansion, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

*O. H. Crews*  
O. H. Crews  
General Superintendent

OHC:amh

We have no objection to the expansion of the North Central Caprock Queen Unit by reason of the conversion of the following Unit wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
14-2	NW/4 of NE/4 Section 14, T-13-S, R-31-E
19-4	NW/4 of NW/4 Section 19, T-13-S, R-32-E

as applied for in your letter dated March 1, 1960.

*A.O.C.*  
~~A.O.C.~~ CORPORATION

BY: *Robert H. Vick*  
DATE: *3-4-60*





March 1, 1960

Graridge Corporation  
P. O. Box 752  
Breckenridge, Texas

Gentlemen:

We have requested expansion of the North Central Caprock Queen Unit under the system for administrative approval as set forth in the Oil Conservation Commission Order No. R-1311. A copy of our application is attached.

If you have no objection to this application for the expansion, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

*O. H. Crews*  
O. H. Crews  
General Superintendent

We have no objection to the expansion of the North Central Caprock Queen Unit operations by reason of the conversion of the following Unit wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
14-2	NW/4 of NE/4 Section 14, T-13-S, R-31-E
19-4	NW/4 of NW/4 Section 19, T-13-S, R-32-E

as applied for in your letter dated March 1, 1960.

GRARIDGE CORPORATION

By: *John Ford*  
Date: 3/9/60



R. C. TUCKER, PRES.

March 1, 1960

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

Great Western Drilling Company  
P. O. Box 1659  
Midland, Texas

Gentlemen:

We have requested expansion of the North Central Caprock Queen Unit under the system for administrative approval as set forth in the Oil Conservation Commission Order No. R-1311. A copy of our application is attached.

If you have no objection to this application for the expansion, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

G. H. Crews  
General Superintendent

We have no objection to the expansion of the North Central Caprock Queen Unit operations by reason of the conversion of the following Unit wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
14-2	NW/4 of NE/4 Section 14, T-13-S, R-31-E
19-4	NW/4 of NW/4 Section 19, T-13-S, R-31-E

as applied for in your letter dated March 1, 1960.

GREAT WESTERN DRILLING COMPANY

By:

Date: 3-10-60





STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

March 11, 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:

Enclosed herewith is a copy of a letter forwarded to me along with the application for administrative approval for conversion of two unit wells to water injection wells, North Central Caprock Queen Unit, Lea and Chaves Counties, New Mexico dated March 1, 1960.

It appears, from the application submitted to you and the letter addressed to me, that the conversion of the two subject wells to water injection wells will not constitute a threat to fresh waters which may exist in the area. Therefore, this office offers no objection to the granting of Great Western's application.

Yours truly,

S. E. Reynolds  
State Engineer

By: *Frank E. Irby*  
Frank E. Irby,  
Chief, Water Rights Division

FEI/ma  
encl.  
cc-O. H. Crews  
F. H. Hennighausen