



December 14, 1962

R. C. TUCKER, PRES.

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

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Re: Application for Administrative
Approval for Conversion of Four
Unit Wells to Water Injection
Wells, Rock Queen Unit

Gentlemen:

As provided in the Oil Conservation Commission Order No. R-1541, Great Western Drilling Company, as operator of the Rock 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>
31-4	NW/4 of NW/4 of Sec. 31, T-13-S, R-32-E
36-8	SE/4 of NE/4 of Sec. 36, T-13-S, R-31-E
36-12	NW/4 of SW/4 of Sec. 36, T-13-S, R-31-E
36-14	SE/4 of SW/4 of Sec. 36, T-13-S, R-31-E

Well 36-1, an offset to wells 31-4 and 36-8, has received response to water injection. A test October 10, 1962 measured 3.2 barrels of oil plus .8 barrels of water. This same well tested 7 barrels of oil plus 1/4 barrel of water November 14th.

Well 36-13, a direct offset to wells 36-12 and 36-14, has also received response to water injection. As of November 5th this well tested 8 barrels of oil per day, no water. On tests this month a sharp increase has been noted. On December 7th the well produced 24 barrels of oil, no water.

We respectfully submit that the ultimate recoverable oil from the Rock Queen Unit reservoir will be decreased and that waste will occur due to an unbalanced condition in the pattern flooding system if the Unit wells 31-4, 36-8, 36-12 and 36-14 are not converted to injection at this time.



Attached to this application are: The C-116 of Great Western Drilling Company wells 36-1 and 36-13, before and after stimulation; a plat of the area showing all producing, water injection and proposed water injection wells; and offset operators.

Waivers from offset operators are being requested at this time, to expedite this program.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

By O. H. Crews
O. H. Crews

OHC/b1
Encl.

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Great Western Drilling Company POOL Caprock Queen
 ADDRESS Box 1659, Midland, Texas MONTH OF November & December, 19. 2
 SCHEDULED TEST..... 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	
Rock Queen Unit										
Tract 13	36-13	12-7	P		24	4	0	24	TSTM	
Tract 13	36-1	11-14	P		24	2	1/4	7	TSTM	
Tests after stimulation by water flood										

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 December 14, 1962

Great Western Drilling Company
Company

By *O.H. Crews* O.H. Crews

Administrative Coordinator
Title

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Great Western Drilling Company POOL Caprock Queen
 ADDRESS Box 1659, Midland, Texas MONTH OF October & November, 1962
 SCHEDULED TEST..... 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	
Rock Queen Unit Tract 13	36-13	11-5	P		24	4	0	8	TSTM	
Tract 13	36-1	10-10	P		24	2	.8	3.2	TSTM	
Tests before stimulation by water flood.										

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.

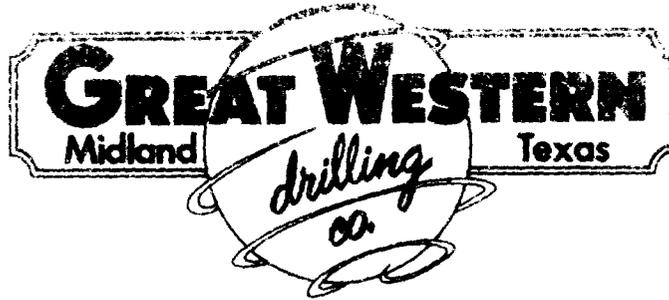
(I certify that the information given is true and complete to the best of my knowledge.)

Date December 14, 1962

Great Western Drilling Company
Company

By O. H. Crews O. H. Crews

Administrative Coordinator
Title



1962 DEC 17 AM 8:31
STATE ENGINEER OFFICE
SANTA FE, N.M.

December 14, 1962

R. C. TUCKER, PRES

PHONE MU 2-8241
ADDRESS REPLY TO:
BOX 1688
MIDLAND, TEXAS

ILLEGIBLE

Chief Water Rights Division
State Engineer's Office
Santa Fe, New Mexico
Attn: Mr. Frank Irby

Re: Great Western Drilling Co.
Application to convert wells
31-4, 36-8, 36-12 and 36-14
to water injection

Dear Sirs:

Well 31-4 was formerly the Great Western Drilling Co. State X #1, located in the NW/4 of NW/4 of Sec. 31, T-13-S, R-32-E, Lea County, New Mexico. New 8 5/8" 24# casing was circulated with cement at 307'. 3060' of new 14# 5 1/2" casing was cemented at 3067' with 100 sacks. The top of this cement outside the casing is calculated at 2500'. The open hole 3067-3071' is opposite the Queen sand. Tests will be made to insure that injected water is confined to this zone. Injection will be down 2" tubing under a packer set at about 2900'.

Well 36-8 was formerly the Great Western Drilling Co. State U #15, located in the SE/4 of NE/4 of Sec. 36, T-13-S, R-31-E, Chave County, New Mexico. New 8 5/8" 24# casing was circulated with cement at 303'. New 5 1/2" 14# casing was cemented at 3061' with 100 sacks. The top of this cement outside the casing is calculated at 2500'. The open hole 3061-3067' is opposite the Queen sand. Tests will be made to insure that injected water is confined to this zone. Injection will be down 2" tubing under a packer set at about 2900'.

Well 36-12 was formerly the Great Western Drilling Co. State U #3, located in the NW/4 of SW/4 of Sec. 36, T-13-S, R-31-E, Chave County, New Mexico. New 8 5/8" casing was circulated by cement at 320'. New 5 1/2" 14# casing was cemented at 3054' with 100 sacks. Top of this cement outside the casing is calculated at 2475'. The open hole 3054-3069' is opposite the Queen sand. Tests will be made to insure that injected water is confined to this zone. Injection will be down 2" casing under a packer set at about 2900'.

Well 36-14 was formerly the Great Western Drilling Co. State U-#5, located in the SE/4 of SW/4 of Sec. 36, T-13-S, R-31-E, Chave County, New Mexico. New 8 5/8" 24# casing was circulated with cement at 306'. New 5 1/2" 14# casing was cemented at 3064' with 100 sacks. The open hole 3064-3069' is opposite the Queen sand. Tests will be made to insure that injected water is confined to this zone. Injection will be down 2" casing under a packer at 2900'.

The above wells are the proposed injection wells referred to in the proposed application. Please make your recommendations to the Commission so that Great Western Drilling Co. can complete the required work and get the flood in balance.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

By: [Signature]
O. B. Green

Copy to
Dept.

ILLEGIBLE



STATE OF NEW MEXICO
STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

December 19, 1962

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

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

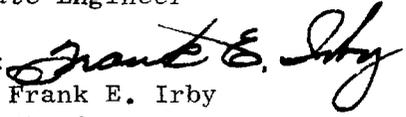
Dear Mr. Porter:

Reference is made to the application of ~~Great Western Drilling Company~~ which seeks administrative approval for conversion of wells 31-4, 36-8, 36-12 and 36-14, to water injection wells, which was submitted on December 14, 1962.

In view of the statements in Mr. Crews' letter to me, a copy of which is enclosed, that injection will be down tubing and under a packer and the packer will be well below the top of the cement surrounding the casing, this office offers no objection to the granting of the application.

Yours truly,

S. E. Reynolds
State Engineer

By: 
Frank E. Irby
Chief
Water Rights Division

FEI/ma
encl.
cc-Great Western Drilling Co.
F. H. Hennighausen



December 27, 1962

R. C. TUCKER, PRES.

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

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Attn: Mr. J. E. Kapteina

Gentlemen:

Please find enclosed, required waivers for expansion
of the Rock Queen Unit as requested in our letter of December
14, 1962.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

By *O. H. Crews*
O. H. Crews

OHC/bl
Encl.





December 14, 1962

R. C. TUCKER, PRES

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

Great Western Drilling Company
Box 1659
Midland, Texas

Gentlemen:

We have requested expansion of the Rock Queen Unit through administrative approval as set forth in Commission Order No. R-1541. A copy of our letter requesting this expansion is enclosed.

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

Yours very truly,

GREAT WESTERN DRILLING COMPANY

BY *A. Green*

OHC/bl

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

<u>Unit Well No.</u>	<u>Location</u>
31-4	NW/4 of NW/4 of Sec. 31, T-13-S, R-32-E
36-8	SE/4 of NE/4 of Sec. 36, T-13-S, R-31-E
36-12	NW/4 of SW/4 of Sec. 36, T-13-S, R-31-E
36-14	SE/4 of SW/4 of Sec. 36, T-13-S, R-31-E

as requested in your application of December 14, 1962.

GREAT WESTERN DRILLING COMPANY

By *A. Green*

Date *Dec 20, 1962*



December 14, 1962

Mr. John Trigg
Box 5629
Roswell, New Mexico

Gentlemen:

We have requested expansion of the Rock Queen Unit through administrative approval as set forth in Commission Order No. R-1541. A copy of our letter requesting this expansion is enclosed.

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

Yours very truly,

GREAT WESTERN DRILLING COMPANY

By E. H. Galloway

OCH:ll

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

<u>Unit Well No.</u>	<u>Location</u>
31-4	NW/4 of NW/4 of Sec. 31, T-13-S, R-32-E
36-8	SE/4 of NE/4 of Sec. 36, T-13-S, R-31-E
36-12	NW/4 of SW/4 of Sec. 36, T-13-S, R-31-E
36-14	SE/4 of SW/4 of Sec. 36, T-13-S, R-31-E

as requested in your application of December 14, 1962.

JOHN TRIGG

By John H. Trigg

Date 12-17-62