

CASE 2293: Application of GREAT  
WESTERN DELG. for approval of  
— GRAIN QUEEN UNIT AGREEMENT.

T

-asa//o.

2293

Application, Transcript,  
and Exhibits, Etc.

69 JAN 30 PM 12 56

January 28, 1969

Great Western Drilling Company  
Box 1659  
Midland, Texas 79701

Re: Grain Queen Unit  
TERMINATION  
Lea County, New Mexico

ATTENTION: Mr. J. B. Buckabay, Jr.

Gentlemen:

The Commissioner of Public Lands has received your proposal to terminate the Grain Queen Unit, effective February 1, 1969, also a letter ballot representing American Petroleum Company of Texas approval of this termination, which conforms with the requirements of Section 23 of the Unit Agreement of the Grain Queen Unit.

The Commissioner approves this termination effective as of February 1, 1969.

We are enclosing three (3) Certificates of Termination for your files.

Very truly yours,

ALEX J. ANIJO  
COMMISSIONER OF PUBLIC LANDS  
BY:

Ted Bilberry, Director  
Oil and Gas Department

AJA/TE/ML/s

cc: OCC- Santa Fe, New Mexico

C  
O  
P  
Y

*File*

**GRAIN QUEEN UNIT**  
 Lea County, New Mexico

PROGRESS REPORT NO. 2

FLOOD NO. 750-40

August, 1961

Production for the month was 4,387 barrels of oil for an average of 141 barrels per day. Water production was 527 barrels. Injected water was 11,394 barrels for an average of 187 barrels per well per day. Isocflow surveys were made on the injection wells 5-6 and 5-14. Well 8-3 had a hot oil treatment of 80 barrels.

**INJECTION DATA**

Well No.	Maximum Pressure	Avg. Daily Injection - BWPD	Monthly Total - BW	Cumulative Total - BW
5-6	1280	28	877	1,943
5-14	1160	346	10,717	13,117
		Total	11,394	17,060

**MONTHLY & CUMULATIVE PRODUCTION**

Well No.	Avg. Daily Prod. Oil	Avg. Daily Prod. Water	Monthly Oil	Monthly Water	Cumulative Oil	Cumulative Water
5-11	9	14	295	434	621	899
5-13	98	3	3,038	93	5,983	186
8-3	34	0	1,054	0	2,046	0
Total			4,387	527	8,650	1,085
Production of wells converted to Injection					780	0
Total Cumulative					2,430	1,085

**WELL STATUS**

3 Producing Wells

2 Injection Wells

**UNIT EMPLOYEES**

1 Pumper

GREAT WESTERN DRILLING COMPANY

By O. H. Cross  
 O. H. Cross

CHC:tr  
 9-13-61

COPY

HERVEY, DOW & HINKLE, ATTORNEYS  
ROSWELL, NEW MEXICO

Case # 2293

July 24, 1961

Great Western Drilling Company  
Box 1659  
Midland, Texas

Attention: Mr. S. H. Snoddy

Re: Grain Queen Unit  
Our No. 144-9

Gentlemen:

We return herewith recorded Certificate dated July 11, 1961, recorded in Chaves County, New Mexico, July 18, 1961, in Book 175 at page 225; this is the Certificate required under Section 23 (d) of the above Unit Agreement.

Respectfully,

HERVEY, DOW & HINKLE

By 

SBC/bk

enc.

cc: Commissioner of Public Lands  
State Land Office Building  
Santa Fe, New Mexico

New Mexico Oil Conservation Commission ✓  
Santa Fe  
New Mexico

COPY

HERVEY, DOW & HINKLE, ATTORNEYS  
ROSWELL, NEW MEXICO

July 17, 1961

*Unit Case # 2293*

Commissioner of Public Lands  
State Land Office Building  
Santa Fe, New Mexico

New Mexico Oil Conservation Commission ✓  
Santa Fe  
New Mexico

Lea County Clerk  
Court House  
Lovington, New Mexico

Re: Grain Queen Unit

Gentlemen:

We enclose herewith to the Commissioner two copies, to the Commission one copy, and to the County Clerk one copy plus filing fee of \$1.75, each of a Certificate dated July 11, 1961, executed by the Unit Operator reflecting that the unit was effective as of 7:00 A.M., July 1, 1961.

Respectfully,

HERVEY, DOW & HINKLE

By \_\_\_\_\_

SAC/bk

enc.

cc: Great Western Drilling Co.

CERTIFICATE

Great Western Drilling Company, by and through its President, R. C. Tucker, does hereby certify:

1. Great Western Drilling Company is the Unit Operator of the Grain Queen Unit Agreement covering lands in Township 13 South, Range 32 East, N.M.P.M., Lea County, New Mexico. This Certificate is made pursuant to Section 23 (d) of said Unit Agreement.

2. The above Unit Agreement, and the attendant Unit Operating Agreement, were effective as of 7:00 A.M. on July 1, 1961.

3. (a) Prior to the above effective date, the above mentioned Unit Agreement and Unit Operating Agreement have been executed or ratified by Working Interest Owners owning a combined Unit participation of at least 90%, and the above mentioned Unit Agreement has been executed or ratified by Royalty Owners owning a combined interest of at least 66-2/3% of the Royalty Interest, in the Unit Area covered by said Unit Agreement.

(b) The Unit Agreement was approved by the Commissioner of Public Lands of the State of New Mexico on June 22, 1961; the Unit Agreement was approved by the Oil Conservation Commission of the State of New Mexico on June 8, 1961, by Order 8-1954, in Case 2293.

(c) One counterpart of said Unit Agreement was filed for record in the Office of the County Clerk of Lea County, New Mexico, by the undersigned Unit Operator on June 26, 1961, and now appears in the Records of said County Clerk in Oil and Gas Book 174, at Page 447. All ratifications and approvals of the Unit Agreement received by Unit Operator prior to such recording was further recorded at said date and place.

DATED this 11 day of July, 1961.

ATTEST:

GREAT WESTERN DRILLING COMPANY

R. W. Pearman  
R. W. Pearman, Assistant Secretary

By: R. C. Tucker  
R. C. Tucker, President

STATE OF TEXAS       )  
                          ( ss.  
COUNTY OF MIDLAND   )

The foregoing instrument was acknowledged before me this 11 day of July, 1961, by R. C. Tucker, President of Great Western Drilling Company, a Texas corporation, on behalf of said corporation.

My Commission Expires

Sam H. Shaddy  
Notary Public

SAM H. SHADDY  
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS  
MY COMMISSION EXPIRES JUNE 1, 1963.

GREAT WESTERN DRILLING CO.  
MIDLAND, TEXAS

Case 2293

August 3, 1961

Re: Grain Queen Unit  
Lea County, New Mexico

Commissioner of Public Lands  
State of New Mexico  
P.O. Box 791  
Santa Fe, New Mexico

Attention: Miss Marion Rhea

Gentlemen:

For your files and information, we are enclosing three (3) copies of revised Exhibits "B" and "C" to the Grain Queen Unit, effective July 1, 1961.

It is requested that you furnish us with a letter of acknowledgement from the Commissioner covering the revised Exhibits. We are enclosing our check in the amount of \$1.00 covering the certificate fee.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

*S. H. Snoddy*

S. H. Snoddy  
Land Manager

SHS:mc  
Encl.

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

cc/encl. Mr. S. B. Christy, IV  
P.O. Box 10  
Roswell, New Mexico



Effective July 1, 1961

EXHIBIT "B"

GRAIN QUEEN UNIT

WELL INFORMATION

<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>LEASE AND/OR ASSIGNMENT NO.</u>	<u>BASIC ROYALTY</u>	<u>LESSEE OF RECORD</u>	<u>OVERRIDING ROYALTY OWNER AND AMOUNT</u>	<u>WORKING INTEREST OWNER AND AMOUNT</u>	<u>PER CENT PARTICIPATION OF TRACT IN UNIT</u>
1	SE/4 NW/4 Sec. 5, T-13-S, R-32-E	40	B-9171	12.5%	Great Western	None	Great Western Drilg. - 100%	12.222014
2	E/2 SW/4, NE/4 NW/4 Sec. 5, T-13-S, R-32-E	120	B-10907	12.5%	Great Western	None	Great Western Drilg. - 100%	65.185113
3	NE/4 NW/4 Sec. 8, T-13-S, R-32-E	40	Estelle Williams	12.5%	Graridge	The Vickers Petroleum Co., Inc. - 5% of 7/8 Subject to Agreement dated 8-16-60	Graridge Corp. - 100%	22.592873

Effective  
July 1, 1961

EXHIBIT "C"  
GRAIN QUEEN UNIT

UNIT PARTICIPATION

WORKING INTEREST OWNERS

TOTAL UNIT  
PARTICIPATION

Granidge Corporation

22.592873

Great Western Drilling Company

77.407127

Total

100.000000

State of New Mexico  
Oil Conservation Commission



STATE GEOLOGICAL  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

**JUNE 8, 1961**

Re: CASE NO. 2292 and 2293 ✓  
ORDER NO. R-1993 and R-1994  
APPLICANT:  
Humble & Great Western

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,  
A. L. Porter, Jr.  
A. L. PORTER, Jr.  
Secretary-Director

Carbon copy of order also sent to:

Hobbs OOC           X            
Artesia OOC                             
Aztec OOC           X          

**OTHER** \_\_\_\_\_

**BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:**

**CASE No. 2293  
Order No. R-1994**

**APPLICATION OF GREAT WESTERN DRILLING  
COMPANY FOR APPROVAL OF THE GRAIN QUEEN  
UNIT AGREEMENT, FOR PERMISSION TO INSTI-  
TUTE A WATERFLOOD PROJECT THEREIN, AND  
FOR SPECIAL RULES GOVERNING SAID WATER-  
FLOOD PROJECT, LEA COUNTY, NEW MEXICO.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 o'clock a.m. on May 24, 1961, at Santa Fe, New Mexico, before Elvin A. Uts, Examiner duy appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 8<sup>th</sup> day of June, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvin A. Uts, and being fully advised in the premises,

**FINDS:**

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Great Western Drilling Company, seeks approval of the Grain Queen Unit Agreement, which unit embraces 200 acres of State and fee lands in Township 13 South, Range 32 East, N10W, Lea County, New Mexico, described as follows:

Section 5: SE/4 NW/4, NE/4 SW/4 and the  
S/2 SW/4

Section 8: NE/4 NW/4

(3) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of waste.

(4) That the applicant further seeks permission to institute a waterflood project in said Grain Queen Unit Area, and seeks

-2-  
CASE No. 2293  
Order No. R-1954

the promulgation of special rules governing said project, including a provision for special allowables.

(5) That due to the size and location of said unit with respect to the capacity-type waterflood project immediately west of the subject unit, all producing wells therein should be assigned a capacity allowable.

(6) That all of the producing wells in the unit have reached an advanced state of depletion and are properly classified as "stripper" wells.

IT IS THEREFORE ORDERED:

(1) That the Grain Cress Unit Agreement as proposed by the applicant, Great Western Drilling Company, is hereby approved.

(2) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 11 SOUTH, RANGE 12 EAST,  
LEA COUNTY, NEW MEXICO

Section 5: SE/4 NW/4, NE/4 SW/4  
and the S/2 SW/4

Section 8: NE/4 NW/4

containing 200 acres, more or less.

(b) That the unit area may be enlarged or contracted as provided in the unit agreement, provided, however, that administrative approval for expansion or contraction of the unit area must be obtained from the Secretary-Director of the Commission.

(3) That the unit operator periodically shall file with the Commission a statement of progress summarizing operations for the exploration and development of all lands committed to said unit. This statement of progress shall be filed within 30 days after the expiration of each six-months period during the term of the unit agreement.

(4) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof.

(5) That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to or ratifying such agreement.

-3-

CASE No. 2293  
Order No. 2-1994

(6) That this order shall become effective on June 1, 1961, or upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico, whichever is later, and shall terminate upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

(7) That the applicant is hereby authorized to institute a waterflood project in said Grain Queen Unit Area by the injection of water into the Queen formation through its State "R" Well No. 4, located in the SE/4 SW/4, and through its State "S" Well No. 4, located in the SE/4 SW/4, both in said Section 5.

(8) That the operation of the waterflood project herein authorized shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, except that all producing wells in the unit shall be assigned capacity allowances.

(9) That monthly progress reports on the subject waterflood project shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

(10) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

EDWIN L. MECHAM, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

ccx/

**BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:**

**CASE No. 2293  
Order No. R-1994**

**APPLICATION OF GREAT WESTERN DRILLING  
COMPANY FOR APPROVAL OF THE GRAIN QUEEN  
UNIT AGREEMENT, FOR PERMISSION TO INSTI-  
TUTE A WATERFLOOD PROJECT THEREIN, AND  
FOR SPECIAL RULES GOVERNING SAID WATER-  
FLOOD PROJECT, LEA COUNTY, NEW MEXICO.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 o'clock a.m. on May 24, 1961, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 8th day of June, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

**FINDS:**

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Great Western Drilling Company, seeks approval of the Grain Queen Unit Agreement, which unit embraces 200 acres of State and fee lands in Township 13 South, Range 32 East, NMPM, Lea County, New Mexico, described as follows:

Section 5: SE/4 NW/4, NE/4 SW/4 and the  
S/2 SW/4

Section 8: NE/4 NW/4

(3) That the proposed unit plan will in principle tend to promote the conservation of oil and gas and the prevention of waste.

(4) That the applicant further seeks permission to institute a waterflood project in said Grain Queen Unit Area, and seeks

-2-

CASE No. 2293

Order No. 2-1994

the promulgation of special rules governing said project, including a provision for special allowables.

(5) That due to the size and location of said unit with respect to the capacity-type waterflood project immediately West of the subject unit, all producing wells therein should be assigned a capacity allowable.

(6) That all of the producing wells in the unit have reached an advanced state of depletion and are properly classified as "stripper" wells.

IT IS THEREFORE ORDERED:

(1) That the Grain Queen Unit Agreement as proposed by the applicant, Great Western Drilling Company, is hereby approved.

(2) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 13 SOUTH, RANGE 32 EAST,

LEA COUNTY, NEW MEXICO

Section 5: SE/4 NW/4, NE/4 SW/4  
and the S/2 SW/4

Section 8: NE/4 NW/4

containing 200 acres, more or less.

(b) That the unit area may be enlarged or contracted as provided in the unit agreement, provided, however, that administrative approval for expansion or contraction of the unit area must be obtained from the Secretary-Director of the Commission.

(3) That the unit operator periodically shall file with the Commission a statement of progress summarizing operations for the exploration and development of all lands committed to said unit. This statement of progress shall be filed within 30 days after the expiration of each six-months period during the term of the unit agreement.

(4) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof.

(5) That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to or ratifying such agreement.



-3-

CASE No. 2793  
Order No. R-1994

(6) That this order shall become effective on June 1, 1961, or upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico, whichever is later, and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

(7) That the applicant is hereby authorized to institute a waterflood project in said Grain Queen Unit Area by the injection of water into the Queen formation through its State "R" Well No. 4, located in the SE/4 NW/4, and through its State "S" Well No. 4, located in the SE/4 SW/4, both in said Section 5.

(8) That the operation of the waterflood project herein authorized shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, except that all producing wells in the unit shall be assigned capacity allowables.

(9) That monthly progress reports on the subject waterflood project shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

(10) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



EDWIN L. MECHEM, Chairman

  
E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary



esr/

*pm*  
*6/6*  
*True*  
*6-6-61*

DRAFT

RSM/csr  
June 5, 1961

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2293

Order No. R- *1994*

APPLICATION OF GREAT WESTERN  
DRILLING COMPANY FOR APPROVAL  
OF THE GRAIN QUEEN UNIT AGREE-  
MENT, FOR PERMISSION TO INSTITUTE  
A WATERFLOOD PROJECT THEREIN, AND  
FOR SPECIAL RULES GOVERNING SAID  
WATERFLOOD PROJECT, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on  
May 24, 1961, at Santa Fe, New Mexico, before Elvis A. Utz,  
Examiner duly appointed by the Oil Conservation Commission of New  
Mexico, hereinafter referred to as the "Commission," in accordance  
with Rule 1214 of the Commission Rules and Regulations.

NOW, on this \_\_\_\_\_ day of June, 1961, the Commission,  
a quorum being present, having considered the application, the  
evidence adduced, and the recommendations of the Examiner,  
Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Great Western Drilling Company,  
seeks approval of the Grain Queen Unit Agreement, which unit  
embraces 200 acres of State and fee lands in Township 13 South,  
Range 32 East, NMPM, Lea County, New Mexico, described as follows:

Section 5: SE/4 NW/4, NE/4 SW/4 and the  
S/2 SW/4  
Section 8: NE/4 NW/4

(3) That the proposed unit plan will in principle tend to  
promote the conservation of oil and gas and the prevention of  
waste.

(4) That the applicant further seeks permission to insti-  
tute a waterflood project in said Grain Queen Unit Area, and seeks  
the promulgation of special rules governing said project, including  
a provision for special allowables.

→ with respect to <sup>an</sup> ~~ineq~~ <sup>waterflood</sup> project  
immediately west of the subject unit,

(5) That due to the size and location of said unit, all producing wells therein should be assigned a capacity allowable.

(6) That all of the producing wells in the unit have reached an advanced state of depletion and are properly classified as "stripper" wells.

IT IS THEREFORE ORDERED:

(1) That the Grain Queen Unit Agreement as proposed by the applicant, Great Western Drilling Company, is hereby approved.

(2) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 13 SOUTH, RANGE 32 EAST,  
LEA COUNTY, NEW MEXICO

Section 5: SE/4 NW/4, NE/4 SW/4  
and the S/2 SW/4

Section 8: NE/4 NW/4

(b) That the unit area may be enlarged or contracted as provided in the unit agreement, provided, however, that administrative approval for expansion or contraction of the unit area must be obtained from the Secretary-Director of the Commission.

(3) That the unit operator periodically shall file with the Commission a statement of progress summarizing operations for the exploration and development of all lands committed to said unit. This statement of progress shall be filed within 30 days after the expiration of each six-months period during the term of the unit agreement.

(4) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof.

(5) That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to or ratifying such agreement.

(6) That this order shall become effective on June 1, 1961, or upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico, whichever is later, and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

(7) That the applicant is hereby authorized to institute a waterflood project in said Grain Queen Unit Area by the injection of water into the Queen formation through its State "R" Well No. 4, located in the SE/4 NW/4, and through its State "S" Well No. 4, located in the SE/4 SW/4, both in said Section 5.

(8) That the operation of the waterflood project herein authorized shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, except that all producing wells in the unit shall be assigned capacity allowables.

(9) That monthly progress reports on the subject waterflood project shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

(10) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Case 2283

Heard 5-24-61

Rec. 6-5-61

1. Grant Grant Western the following:
  - (a) approval of their Unit of agreement consisting of Sec. 5, SE NW, NE SW, S/2 SW; Sec. 8, NE NW, all in 13 S - 32 E.
  - (b) approval to institute a waterflood project on the said unit and approve the following wells as W-I injection wells.
    - (1) G.W. - State "B" # 4 SE NW sec 5.
    - " - State "S" # 4 SE SW "
  - (c) Assign special allowable for the unit that being capacity.
  - (d) approval to commingle the production on the unit.

not necessary }

Ernest W. [Signature]

Unit is 100% unitized

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF THE STATE OF NEW  
MEXICO FOR THE PURPOSE OF  
CONSIDERING:

CASE NO.  
Order No.

THE APPLICATION OF \_\_\_\_\_  
\_\_\_\_\_  
FOR THE APPROVAL OF \_\_\_\_\_  
\_\_\_\_\_ UNIT  
AGREEMENT EMBRACING  
ACRES, MORE OR LESS, LOCATED IN TOWNSHIP  
\_\_\_\_\_, RANGE \_\_\_\_\_  
NMPM, \_\_\_\_\_ COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at \_\_\_\_\_ o'clock \_\_\_\_\_ m. on \_\_\_\_\_  
19\_\_\_\_ at \_\_\_\_\_, New Mexico, before \_\_\_\_\_

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, the Commission, a quorum being  
present, having considered \_\_\_\_\_

and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission  
has jurisdiction of this cause and the subject matter thereof.

(2) That the proposed unit plan will in principle tend to promote the conservation  
of oil and gas and the prevention of waste.

IT IS THEREFORE ORDERED:

(1) That this order shall be known as the

\_\_\_\_\_ UNIT AGREEMENT ORDER.

(2) (a) That the project herein referred to shall be known as the \_\_\_\_\_  
\_\_\_\_\_ Unit Agreement and shall hereinafter be referred to as the "Project."

(b) That the Plan by which the project shall be operated shall be embraced  
in the form of a unit agreement for the development and operation of the \_\_\_\_\_  
\_\_\_\_\_ Unit Area, referred to in the Petitioner's petition and filed with said  
petition, and such plan shall be known as the \_\_\_\_\_ Unit Agreement Plan.

(3) (a) That the \_\_\_\_\_ Unit Agreement Plan shall be, and  
hereby is, approved in principle as a proper conservation measure; provided, however, that  
notwithstanding any of the provisions contained in said unit agreement, this approval shall  
not be considered as waiving or relinquishing in any manner any right, duties or obligations  
which are now, or may hereafter, be vested in the New Mexico Oil Conservation Commission by  
law relative to the supervision and control of operations for exploration and development of  
any lands committed to said \_\_\_\_\_ Unit Agreement, or relative  
to the production of oil and gas therefrom.

Use letter (a) only if  
Paragraph 2(b) is used.

Order No.

Use 3(1) only if  
no federal acreage  
is involved

(b) That the unit operator periodically shall file with the Commission a Unit Statement of Progress, summarizing operations for the exploration and development of any lands committed to said Unit Agreement. This statement of progress shall be filed within 30 days after the expiration of each six-months period during the term of the unit agreement, and shall contain such pertinent data as may be necessary for the Commission to determine the progress being made in the Unit Area.

(4) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP \_\_\_\_\_, RANGE \_\_\_\_\_

containing \_\_\_\_\_ acres more or less.

Note →

(b) The unit area may be enlarged or contracted as provided in said Plan.  
(Omit if Agreement does not so provide.)

(5) That the unit operator shall file with the Commission an executed original or executed counterpart of the \_\_\_\_\_ Unit Agreement within 30 days after the effective date thereof.

(6) That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart or ratification.

(7) That this Order shall become effective upon the approval of said unit agreement by the \_\_\_\_\_

and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

, Chairman

, Member

, Member & Secretary

S E A L

In Reply: Refer  
to Unit Division

June 22, 1961

Great Western Drilling Company  
Box 1659  
Midland, Texas

Re: Grain Queen Unit  
Agreement, Lea County,  
New Mexico

Attention: Mr. S. H. Snoddy

Gentlemen:

The Commissioner of Public Lands has approved  
the Grain Queen Unit Agreement as of June 22, 1961.

We are enclosing five Certificates of Approval.

We assume the effective date of this unit will  
be as of July 1, 1961, will you please verify this  
effective date.

Very truly yours,

E. S. JOHNNY WALKER  
COMMISSIONER OF PUBLIC LANDS

BY:

Ted Bilberry, Supervisor  
Oil and Gas Division

Enc:  
cc: OCC  
EHW/umx/v

C  
O  
P  
Y





STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

May 9, 1961

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

*File  
Case 2293*

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 approval of their proposed Grain Queen Unit Agreement for the purpose of secondary recovery operations, for authority to institute a water flood project in the Caprock Queen Pool and for the expansion thereof by administrative procedure, and for authority to commingle the production from all wells producing unitized substances within the unit area in Lea County, New Mexico, which was received in this office on May 8, 1961.

I have discussed this application with Mr. John Hampton, Chief Production Engineer for Great Western Drilling Company by telephone this date. He states that the surface casing had cement circulated to the surface and that injection will be through tubing and packer. With this information, in addition to that contained in the application and the exhibits forwarded to this office, I have reached the conclusion that the approval of this application will not constitute a threat to the fresh waters which exist in the area. Therefore, this office offers no objection to the approval of this application.

Yours very truly,

FEI/ma  
cc-Great Western Drilling Co.  
Attn. Mr. John Hampton

Mr. S. B. Christy, IV  
Hervey, Dow & Hinkle

F. H. Hennighausen

S. E. Reynolds  
State Engineer

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

No. 15-61

DOCKET: EXAMINER HEARING - WEDNESDAY, MAY 24, 1961

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, examiner, or Daniel S. Nutter, as alternate examiner:

CASES 2291 through 2296 will not be heard before 1:30 p.m.

- CASE 2280: Application of Continental Oil Company for a non-standard gas proration unit and for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 240-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the E/2 E/2, SW/4 SE/4 and the SE/4 SW/4 of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico, to be dedicated to its Lockhart A-17 Well No. 2, at an unorthodox location 1980 feet from the South line and 660 feet from the East line of said Section 17.
- CASE 2281: Application of Continental Oil Company for an exception to Rule 309 (a), Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle the Maljamar Pool production from all wells presently completed or hereafter drilled on its Taylor Lease, comprising the SW/4 of Section 14, Township 17 South, Range 32 East, Lea County, New Mexico, and on its Federal Miller BX Lease, comprising the E/2 of said Section 14, after separately metering the production from each lease.
- CASE 2282: Application of Continental Oil Company for an amendment of Order No. R-1602. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1602 changing the effective date thereof and making the provisions of said order effective as of March 1, 1960.
- CASE 2283: Application of Skelly Oil Company for an exception to Rule 303 (a), Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle the Denton (Devonian) Pool production and the Denton-Wolfcamp Pool production on its Mexico "F" Lease comprising Lots 1, 2, 3, and 4, the SW/4 NE/4 and the SW/4 NW/4 of Section 2, Township 15 South, Range 37 East, Lea County, New Mexico, and to allocate the production to each well in each pool on the basis of periodic well tests.

CASE 2284: Application of Skelly Oil Company for an exception to Rule 303 (a), Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle the oil production from the Hare and Drinkard Pools with the distillate production from the Blinebry and Tubb Gas Pools on its E. A. Sticher Lease, consisting of the N/2 SW/4 of Section 4, Township 22 South, Range 37 East, Lea County, New Mexico, and to allocate the production to each well in each pool on the basis of periodic well tests.

CASE 2285: Application of Texaco Inc., for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location in the Tubb Gas Pool for its A. H. Blinebry NCT-1 Well No. 8, located 1980 feet from the North line and 330 feet from the West line of Section 33, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 2286: Application of Aztec Oil & Gas Company for an exception to Rule 309 (a), San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle the Totah-Gallup Pool production from the following-described leases, all in Township 29 North, Range 13 West, San Juan County, New Mexico.

Federal Lease No. SF 079065 in Sections 19, 20 and 29.

State Lease B-11017-23 comprising in pertinent part the SW/4 NW/4 of Section 20.

State Lease B-11017-21 comprising in pertinent part the NW/4 NW/4 of Section 20.

Smith-Eaton Lease comprising in pertinent part the NE/4 SE/4, SE/4 NE/4 and the E/2 NW/4 of Section 20.

Applicant proposes to commingle said production in a common tank battery located on the SW/4 of said Section 20 after separately metering the production from the State and fee leases only.

CASE 2287: Application of Aztec Oil & Gas Company for an exception to Rule 309 (a), San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle the Totah-Gallup Pool production from five separate fee leases, all located in Section 18, Township 29 North, Range 13 West, San Juan County, New Mexico.

CASE 2288:

Application of Southwest Production Company for two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of two non-standard gas proration units in the Basin-Dakota Gas Pool, San Juan County, New Mexico, described as follows:

(1) W/2 of Section 7, Township 30 North, Range 11 West, except the 3.39-acre tract therein owned by Harold M. Brimhall and Maleta Y. Brimhall, comprising the sum total approximately 327.01 acres.

(2) E/2 of Section 7, Township 30 North, Range 11 West, except the S/2 SW/4 SE/4; comprising in sum total approximately 300 acres.

CASE 2289:

Application of Aspen Crude Purchasing Company for three non-standard oil proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the following-described non-standard oil proration units in and adjacent to the Cha Cha-Gallup Oil Pool:

(1) Lot 1 and the S/2 SE/4 of Section 7, Township 28 North, Range 13 West;

(2) Lot 5 and the SE/4 SW/4 of said Section 7; and

(3) Lots 2, 3 and 4 of said Section 7, and 40.81 acres located between said Section 7 and Section 36, Township 29 North, Range 14 West;

all in San Juan County, New Mexico.

CASE 2290:

Application of Aspen Crude Purchasing Company for three non-standard oil proration units and for an unorthodox well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of the following-described non-standard oil proration units adjacent to the Totah-Gallup Oil Pool in Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico:

(1) Lots 1 and 2 and the SE/4 SE/4, comprising 97.78 acres, to be dedicated to a well at a non-standard location 263 feet from the North line and 700 feet from the East line of said Section 11.

CASE 2290: (Cont.)

(2) Lots 3 and 4 and the SW/4 SW/4, comprising 97.58 acres.

(3) SW/4 SE/4 and the SE/4 SW/4, comprising 80 acres.

---

The following cases will not be heard before 1:30 p.m.

CASE 2291: Application of Pan American Petroleum Corporation for an exception to Rule 303 (a), Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to commingle, prior to measurement, the Paddock, Brunson and Wantz-Abo pool production from all wells on its Hugh Corrigan Lease, comprising the NE/4 SE/4 of Section 33, Township 21 South, Range 37 East, Lea County, New Mexico, and to allocate production to each well in each pool on the basis of periodic well tests.

CASE 2292: Application of Humble Oil & Refining Company for permission to take interference tests and transfer allowables in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to take interference tests in the Cha Cha-Gallup Oil Pool, San Juan County, New Mexico, by shutting in its Navajo Tribe "L" Well No. 4, located in the SW/4 SE/4 of Section 26, Township 29 North, Range 14 West, and transferring its allowable to other wells on the same basic lease in such a manner that no well will produce more than 125% of its monthly allowable.

CASE 2293: Application of Great Western Drilling Company for approval of the Grain Queen Unit Agreement, for permission to institute a waterflood project therein, for special rules governing said waterflood project including a provision for special allowables, and for permission to commingle the production from all leases in said unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Grain Queen Unit Agreement, which unit embraces 200 acres of State and fee lands in Township 13 South, Range 32 East, Lea County, New Mexico, described as follows:

CASE 2293: (Cont.)

Section 5: SE/4 NW/4, NE/4 SW/4 and the S/2 SW/4  
Section 8: NE/4 NW/4

Applicant further seeks permission to institute a waterflood project in said Grain Queen Unit Area and seeks the promulgation of special rules governing said project including a provision for special allowables. Applicant further seeks permission to commingle the unitized substances produced from all leases in said Grain Queen Unit Area without separate measurement in tanks on each individual lease.

CASE 2294:

Application of El Paso Natural Gas Company for authorization to conduct maximum pressure build-up tests. Applicant, in the above-styled cause, seeks authorization to conduct maximum pressure build-up tests in the Blanco-Mesaverde Gas Pool, the Aztec-Pictured Cliffs Gas Pool, the Ballard-Pictured Cliffs Gas Pool, the Fulcher Kutz-Pictured Cliffs Gas Pool, and the South Blanco-Pictured Cliffs Gas Pool, San Juan and Rio Arriba Counties, New Mexico. Applicant further seeks establishment of special rules governing said tests including a provision authorizing the non-cancellation and/or transfer of allowables from wells to be shut-in in each pool and including a provision allowing substitute tests by administrative approval.

CASE 2295:

Application of Consolidated Oil & Gas, Inc. for a dual completion, a non-standard gas proration unit and for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 325.23-acre non-standard gas proration unit in the Basin-Dakota Gas Pool and in the Blanco-Mesaverde Gas Pool consisting of the S/2 of Section 34, Township 32 North, Range 13 West, San Juan County, New Mexico, said unit to be dedicated to its Robinson Brothers Well No. 1, proposed to be dually completed in said pools at an unorthodox gas well location for said pools at a point 1235 feet from the South line and 760 feet from the East line of said Section 34.

CASE 2296:

Application of Consolidated Oil & Gas Inc., for an order force-pooling a standard 320-acre proration unit in the Basin-Dakota Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Gas Pool in the E/2 of Section 10, Township 31 North, Range 13 West, San Juan County, New Mexico, to form a standard 320-acre gas proration unit.



OFFICE OF THE COMMISSIONER OF PUBLIC LANDS

STATE LAND OFFICE

SANTA FE, NEW MEXICO

APPLICATION FOR APPROVAL  
OF THE  
GRAIN QUEEN UNIT AGREEMENT  
FOR THE PURPOSE OF  
RECOVERING RESERVE OIL AND GAS

TO: Commissioner of Public Lands  
State Land Office  
Santa Fe, New Mexico

Comes now the undersigned, GREAT WESTERN DRILLING COMPANY,  
whose address is Box 1439, Midland, Texas, and hereby makes  
application for the approval of the Grain Queen Unit Agreement  
embracing the following described land situated in Lea County,  
New Mexico, to-wit:

Township 13 South, Range 32 East, N.M.P.M.

Section 5: SE $\frac{1}{4}$ , NW $\frac{1}{4}$ , S $\frac{1}{2}$   
Section 8: NW $\frac{1}{4}$

containing 200 acres, more or less, and in support thereof states:

1. The proposed Unit Area is composed of 160 acres of State  
of New Mexico lands and 40 acres of privately owned lands. The  
oil and gas leases covering said lands are more particularly des-  
cribed in Exhibit "B" to said Unit Agreement, and two copies of  
said Unit Agreement and one copy of the attendant Unit Operating  
Agreement are attached to this Application and marked respectively  
Exhibit "1" and "2".

2. (a) That such Unit Agreement will tend to promote the  
conservation of oil and gas and the better utilization of reservoir  
energy.

(b) That under the proposed Unit operations, the State  
of New Mexico will receive its fair share of the recoverable oil  
and gas in place under its lands in the proposed Unit Area.



(c) That each beneficiary institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the Unit Area.

(d) That such Unit Agreement is in other respects for the best interest of the State of New Mexico with respect to State land.


3. That the lands to be embraced in the proposed Unit Area cover all or substantially all of the available lands necessary for the effective and efficient institution of a secondary recovery operation by the institution of a waterflood project, the various procedures of which are set forth in detail either in the attached Unit Agreement, or in the application made by this Applicant to the New Mexico Oil Conservation Commission in Case No. \_\_\_\_\_, a copy of which such application is likewise attached hereto and marked Exhibit "3". That said Unit Agreement is in all respects in the interest of conservation, the protection of correlative rights, and for the best interest of the State of New Mexico.

4. A filing fee in the amount of \$10.00 is submitted herewith.

WHEREFORE, Applicant respectfully requests that said Unit Agreement be approved by the Commissioner of Public Lands of the State of New Mexico as provided by law and applicable regulation.

DATED this 5th day of May, 1961.

GRANT MESSING DRILLING COMPANY

By   
J. E. Gentry, Esq.  
Harvey, Law & Gentry  
Box 10, Roswell, New Mexico  
Attorneys for the Applicant

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF GREAT WESTERN DRILLING COMPANY  
FOR APPROVAL OF THE GRAIN QUEEN  
UNIT AGREEMENT FOR THE PURPOSE OF  
SECONDARY RECOVERY OPERATIONS, FOR  
AUTHORITY TO INSTITUTE A WATER-  
FLOOD PROJECT IN THE CAPROCK QUEEN  
POOL AND FOR EXPANSION THEREOF BY  
ADMINISTRATIVE PROCEDURE, AND FOR  
AUTHORITY TO COMMINGLE THE PRODUCT-  
ION FROM ALL WELLS PRODUCING UNITI-  
ZED SUBSTANCES WITHIN THE UNIT AREA;  
ALL IN LEA COUNTY, NEW MEXICO

Case No. 2293

TO: The Oil Conservation Commission  
State of New Mexico  
Santa Fe, New Mexico

Comes now the Applicant, GREAT WESTERN DRILLING COMPANY, whose address is Box 1659, Midland, Texas, and files herewith a copy of the proposed Grain Queen Unit Agreement (identified as Exhibit 1 to this Application) for the development and operation of the Grain Queen Unit Area in Lea County, New Mexico, and hereby makes application for (i) approval of the Grain Queen Unit Agreement for the purpose of secondary recovery operations, (ii) for authority to institute a waterflood project in the Caprock Queen Pool and for expansion thereof by administrative procedure and to assign special allowable to the wells within such project as are within a buffer zone, and (iii) for authority to commingle the production from all wells producing Unitized Substances (as such is defined in the Unit Agreement) within the Unit Area; and in support thereof states:

*Doc  
Filed*

I.

UNIT AGREEMENT

1. That the proposed Unit Area covered by the Unit Agreement embraces 200 acres more or less, more particularly described as follows:

Township 13 South, Range 32 East, N.M.P.M.

Section 5: SE $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , S $\frac{1}{4}$ SW $\frac{1}{4}$   
Section 8: NE $\frac{1}{4}$ NW $\frac{1}{4}$

✓ 2. That the proposed Unit Area is comprised of 160 acres of State of New Mexico lands and 40 acres of privately owned lands.

3. Applicant is informed and believes, and upon such information and belief states: that the lands to be embraced in the proposed Unit Area cover all or substantially all of the available lands necessary for the effective and efficient institution of a secondary recovery operation by the institution of a waterflood project, and that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation, the protection of correlative rights and the prevention of waste of Unitized Substances.

4. That Great Western Drilling Company is designated as Unit Operator in the Unit Agreement, and as such is given authority under the terms thereof to carry on operations necessary and proper for the development and operation of the Unit Area and the recovery of Unitized Substances, subject to all applicable laws and regulations. That said Unit Agreement provides for the institution of a secondary recovery operation by the institution of a waterflood project in the Caprock Queen Pool as more fully stated hereinbelow.

5. That said Unit Agreement is in substantially the same form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico; it is believed that the field or area involved can be developed more economically and efficiently under the terms of said Unit Agreement to the end that the maximum recovery of Unitized Substances can be obtained without the violation of correlative rights.

6. That application has been made for the approval of said Unit Agreement to the Commissioner of Public Lands of the State of New Mexico, and that prior to the hearing on this Application, informal approval of the form and context of said Unit Agreement will be obtained from the Commissioner. That after formal approval thereof by the Commissioner, a fully executed and approved copy of the Unit Agreement, and a copy of such approval by the Commissioner, will be filed with this Commission.

## II.

### WATERFLOOD PROJECT

1. A plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles of said proposed injection wells, and the formation from which said wells are producing or have produced is attached hereto and marked Exhibit 2 to this Application. Said plat also indicates the lessees (or Unit Operators) within said two mile radius.

2. All available logs of the proposed injection wells (being Wells "R" No. 4 and "S" No. 4) are filed herewith.

3. The proposed injection wells' casing program is as follows: the injection wells' casing is  $4\frac{1}{2}$  inch to  $5\frac{1}{2}$  inch casing set at the top of the Queen Formation pay zone. The proposed

method for testing casing before use of the injection wells will be in conformity with the established rules of the Commission, including Rule 107 and 702, and all other applicable law and regulation.

4. (a) The name and depth of the zone or formation into which injection will be made is the Queen Sand formation, which is defined in said Unit Agreement as and to mean that heretofore established underground reservoir, a member of the Queen formation of the Guadalupe Series, a part of the Permian System, which is found at 3018 to 3026 feet in the Great Western Drilling Company State TT #1 Well located 660' FNL & 660' FEL, Sec. 2, T. 13 S., R. 31 E., N.M.P.M.

(b) The kind of fluid to be injected is water.

(c) The anticipated amount to be injected is estimated at approximately 500 barrels of water daily to "fill up" and thereafter a decreasing amount of water sufficient to maintain effective and efficient secondary recovery operations.

(d) The source of the injection fluid is fresh water to be obtained by purchase from the Unit Operator of the North Caprock Queen Unit No. 1, which Unit lies immediately west and adjacent to the Grain Queen Unit Area.

5. In view of the production and allowables assigned to surrounding wells, it is believed that the above lands and wells are best susceptible to a water flood project rather than a pressure maintenance project.

6. Applicant requests that an allowable be assigned to this waterflood project in accordance with applicable rule and regulation, and in this connection Applicant states that all of the initial project area is within a buffer zone and as such is entitled to a special allowable for the protection of correlative rights in conformity with Rule 701 of this Commission.

7. The initial project area proposed under this Application embraces all of the Unit Area; however, the Unit Agreement provides for expansion of the Unit Area, and in the event of such expansion Applicant requests that the Order entered approving this waterflood project provide that an expansion of the waterflood project may be authorized by administrative procedure in accordance with applicable rule or regulation.

8. Applicant has made compliance with the Commission's Memorandum No. 5-58, dated January 31, 1958.

### III.

#### COMMINGLING

1. Applicant requests permission to commingle the production of Unitized Substances from all leases within the exterior boundaries of the above Unit Area. Applicant is informed and believes, and upon such information and belief states: that such commingling will neither cause waste nor impair correlative rights and that all production so proposed to be commingled is uniform and similar in composition, gravity, and component parts.

2. As an exception to Rule 309 (a) of this Commission, Applicant further requests authority to transport Unitized Substances from the unitized formations in the various leases within the exterior boundaries of the Unit Agreement prior to such Unitized Substances having been received and measured into tanks located on the individual leases. Applicant believes and states that adequate tankage and other equipment can be installed so that production from the Unit Area can be accurately determined at reasonable intervals without separately measuring such Unitized Substances in tanks located on the individual leases. In this connection it is proposed to transport such Unitized Substances from as many as 3 wells within the Unit Area to one central location

within the Unit Area for the purpose of receiving and measuring such production. Appropriate lines will be laid from each well into the central gathering system.

3. Applicant offers to comply with all reasonable rules and regulations of the Commission relative to the testing, storage and metering of the Unitized Substances requested to be so commingled, and Applicant further offers to file all required, or reasonably requested, reports in connection therewith.

WHEREFORE, Applicant respectfully requests that this Application be set before an Examiner Hearing at Santa Fe, New Mexico, and that upon such hearing the Commission enter its Order:

M.P. ↓

(a) Approving in principal as a proper conservation measure the Grain Queen Unit Agreement; provided however that notwithstanding any of the provisions contained in said Unit Agreement that such approval not be considered as waiving or relinquishing in any manner any right, duty or obligation which now, or may hereafter be, vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for the exploration and development of any land committed to the Grain Queen Unit Agreement, or relative to the production of oil or gas therefrom; and,

(b) Designate the Unit Area of the Grain Queen Unit as the lands described in Paragraph I, 1, hereinabove, and provide that the Unit Area may be expanded or contracted as provided in said Unit Agreement; and,


(c) Authorize Applicant as Operator of the Grain Queen Unit to institute a waterflood project in the manner and mode set forth in Paragraph II, hereinabove, including the authority to expand such waterflood project, in the event the Unit Area is expanded, by administrative procedure in accordance with applicable rule; and,

(d) Assign a special allowable to said waterflood project equal to the capacity of the wells within the waterflood project to produce Unitized Substances; and,

(e) Commingle the production from separate leases within the Unit Area and to produce all Unitized Substances within the Unit Area into a common tank battery in the mode and manner set forth in Paragraph III hereinabove.

DATED this 3<sup>rd</sup> day of May, 1961.

GREAT WESTERN DRILLING COMPANY

By   
S. B. Christy, ~~for~~ for Hervey,  
Dow & Hinkle,  
Box 10  
Roswell, New Mexico

Attorneys for the Applicant



BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE AFFIRMATION  
OF GREAT WESTERN DRILLING COMPANY  
FOR APPROVAL OF THE GRAIN QUEEN  
UNIT AGREEMENT FOR THE PURPOSE OF  
SECONDARY RECOVERY OPERATIONS, FOR  
AUTHORITY TO INSTITUTE A WATER-  
FLOOD PROJECT IN THE GRAIN QUEEN  
POOL AND FOR EXPANSION ISSUED BY  
ADMINISTRATIVE PROCEDURE AND TO  
DESIGN SPECIAL ALLOCABLE TO THE  
WELLS WITHIN SUCH PROJECT AS ARE  
WITHIN A BUFFER ZONE, AND (iii)  
FOR AUTHORITY TO ~~suspend~~ the ~~production~~ from all wells pro-  
ducing Unitized Substances (as such is defined in the Unit Agree-  
ment) within the Unit Area; and in support thereof states:

Case No. 2293

TO: The Oil Conservation Commission  
State of New Mexico  
Santa Fe, New Mexico

Comes now the Applicant, GREAT WESTERN DRILLING COMPANY, whose address is Box 1630, Midland, Texas, and files herewith a copy of the proposed Grain Queen Unit Agreement (identified as Exhibit 1 to this Application) for the development and operation of the Grain Queen Unit Area in Lea County, New Mexico, and hereby makes application for (i) approval of the Grain Queen Unit Agreement for the purpose of secondary recovery operations, (ii) for authority to institute a waterflood project in the Caprock Queen Pool and for expansion issued by administrative procedure and to design special allocable to the wells within such project as are within a buffer zone, and (iii) for authority to ~~suspend~~ the ~~production~~ from all wells producing Unitized Substances (as such is defined in the Unit Agreement) within the Unit Area; and in support thereof states:

I.

UNIT AGREEMENT

1. That the proposed Unit Area covered by the Unit Agreement embraces 160 acres more or less, more particularly described as follows:

Township 12 South, Range 12 East, N.E. 1/4, S. 1/4.

Section 2: Section 3: Section 4: Section 5:  
Section 6: Section 7: Section 8: Section 9:

2. That the proposed Unit Area is comprised of 160 acres of State of New Mexico lands and 40 acres of privately owned lands.

3. Applicant is informed and believes, and upon such information and belief states: that the lands to be embraced in the proposed Unit Area cover all or substantially all of the available lands necessary for the effective and efficient institution of a secondary recovery operation by the institution of a waterflood project, and that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation, the protection of cumulative rights and the prevention of waste of Unitized Substances.

4. That Great Western Drilling Company is designated as Unit Operator in the Unit Agreement, and as such is given authority under the terms thereof to carry on operations necessary and proper for the development and operation of the Unit Area and the recovery of Unitized Substances, subject to all applicable laws and regulations. That said Unit Agreement provides for the institution of a secondary recovery operation by the institution of a waterflood project in the Great Western Field as more fully stated hereinafter.

5. That said Unit Agreement is in substantially the same form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico; it is believed that the field or area involved can be developed more economically and efficiently under the terms of said Unit Agreement to the end that the maximum recovery of Oil and Substances can be obtained without the violation of correlative rights.

6. That application has been made for the approval of said Unit Agreement to the Commissioner of Public Lands of the State of New Mexico, and that prior to the hearing on this Application, informal approval of the form and content of said Unit Agreement will be obtained from the Commissioner. That after formal approval thereof by the Commissioner, a fully executed and approved copy of the Unit Agreement, and a copy of such approval by the Commissioner, will be filed with this Commission.

## II.

### WATERFLOOD PROJECT

1. A plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles of said proposed injection wells, and the formation from which said wells are producing or have produced is attached hereto and noted Exhibit 2 to this Application. Said plat also indicates the leases (or Unit Operators) within said two mile radius.

2. All available logs of the proposed injection wells (Leasing Wells "K" No. 4 and "S" No. 4) are filed herewith.

3. The proposed injection wells' casing program is as follows: the injection wells' casing is  $4\frac{1}{2}$  inch to  $5\frac{1}{2}$  inch casing set at the top of the Queen Formation pay zone. The proposed

method for testing casing before use of the injection wells will be in conformity with the established rules of the Commission, including Rule 107 and 702, and all other applicable law and regulation.

4. (a) The name and depth of the zone or formation into which injection will be made is the Queen Sand formation, which is defined in said Unit Agreement as and to mean that heretofore ~~established underground reservoir, a member of the Queen formation of the Sandstone Series, a part of the Permian System, which is~~ found at 3018 to 3026 feet in the Great Western Drilling Company State TT #1 Well located 660' PNL & 660' PNL, Sec. 2, T. 13 S., R. 31 E., N.M.P.M.

(b) The kind of fluid to be injected is water.

(c) The anticipated amount to be injected is estimated at approximately 500 barrels of water daily to "fill up" and thereafter a decreasing amount of water sufficient to maintain effective and efficient secondary recovery operations.

(d) The source of the injection fluid is fresh water to be obtained by purchase from the Unit Operator of the North Ogreek Queen Unit No. 1, which Unit lies immediately west and adjacent to the Grain Queen Unit Area.

5. In view of the production and allowables assigned to surrounding wells, it is believed that the above lands and wells are best susceptible to a water flood project rather than a pressure maintenance project.

6. Applicant requests that an allowable be assigned to this waterflood project in accordance with applicable rule and regulation, and in this connection Applicant states that all of the initial project area is within a buffer zone and as such is entitled to a special allowable for the protection of correlative rights in conformity with Rule 701 of this Commission.

7. The initial project area proposed under this Application ~~includes all of the Unit Area, however, the Unit Agreement pro-~~ vides for expansion of the Unit Area, and in the event of such expansion Applicant requests that the Order entered approving this ~~unitized~~ project provide that an expansion of the ~~unit-~~ fied project may be authorized by administrative procedure in accordance with applicable rule or ~~regulation~~.

8. Applicant has made compliance with the Commission's Memorandum No. 3-38, dated January 31, 1958.

### III.

#### OUTLINE

1. Applicant requests permission to commingle the production of Unitized Substances from all leases within the exterior boundaries of the above Unit Area. Applicant is informed and believes, and upon such information and belief states: that such commingling will neither cause waste nor impair correlative rights and that all production so proposed to be commingled is uniform and similar in composition, gravity, and component parts.

2. As an exception to Rule 309 (a) of this Commission, Applicant further requests authority to transport Unitized Substances from the unitized formations in the various leases within the exterior boundaries of the Unit Agreement prior to such Unitized Substances having been received and measured into tanks located on the individual leases. Applicant believes and states that adequate tanks and other equipment can be installed so that production from the Unit Area can be accurately determined at reasonable intervals without separately measuring such Unitized Substances in tanks located on the individual leases. In this connection it is proposed to transport such Unitized Substances from as many as 3 wells within the Unit Area to one central location

within the Unit Area for the purpose of receiving and measuring such production. Appropriate lines will be laid from each well into the central gathering system.

3. Applicant offers to comply with all reasonable rules and regulations of the Commission relative to the testing, storage and metering of the Unitized Substances requested to be so commingled, and Applicant further offers to file all ~~required, or reasonably requested,~~ reports in connection therewith.

WHEREFORE, Applicant respectfully requests that this Application be set before an Examiner Hearing at Santa Fe, New Mexico, and that upon such hearing the Commission enter its Order:

(a) Approving in principle as a proper conservation measure the Grain Queen Unit Agreement; provided however that notwithstanding any of the provisions contained in said Unit Agreement that such approval not be considered as waiving or relinquishing in any manner any right, duty or obligation which now, or may hereafter be, vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for the exploration and development of any land committed to the Grain Queen Unit Agreement, or relative to the production of oil or gas therefrom; and,

(b) Designate the Unit Area of the Grain Queen Unit as the lands described in Paragraph I, 1, hereinabove, and provide that the Unit Area may be expanded or contracted as provided in said Unit Agreement; and,

(c) Authorize Applicant as Operator of the Grain Queen Unit to institute a waterflood project in the manner and mode set forth in Paragraph II, hereinabove, including the authority to expand such waterflood project, in the event the Unit Area is expanded, by administrative procedure in accordance with applicable rules; and,

(d) Assign a special allowance to said waterflood project equal to the capacity of the wells within the waterflood project to produce United States Substances; and,

(e) Commingle the production from separate lenses within the Unit Area and to produce all United States Substances within the Unit Area into a common tank battery in the mode and manner set forth in Paragraph III hereinafore.

WITNESSED this 22 day of May, 1961.

J. E. ...  
New Mexico  
Attorneys for the Applicant

**BEFORE THE OIL CONSERVATION COMMISSION**

**ORDER OF THE COMMISSION**

**IN THE MATTER OF THE APPLICATION  
OF GREAT WESTERN DRILLING COMPANY  
FOR APPROVAL OF THE GRIN QUEEN  
UNIT AGREEMENT FOR THE PURPOSE OF  
SECONDARY RECOVERY OPERATIONS, FOR  
AUTHORITY TO INSTITUTE A WATER-  
FLOOD PROJECT IN THE GRIN QUEEN  
POOL AND FOR EXPANSION THEREOF BY  
ADMINISTRATIVE PROCEDURE, AND FOR  
AUTHORITY TO CURTAIL THE PRODUCTION  
FROM ALL WELLS PRODUCING UNPLUG-  
GED SPONGERS WITHIN THE UNIT AREA;  
ALL IN LSA COUNTY, NEW MEXICO**

Case No. 2293

**TO: The Oil Conservation Commission  
State of New Mexico  
Santa Fe, New Mexico**

Com: now the Applicant, GREAT WESTERN DRILLING COMPANY, whose address is Box 1639, Midland, Texas, and files herewith a copy of the proposed Grin Queen Unit Agreement (identified as Exhibit 1 to this Application) for the development and operation of the Grin Queen Unit Area in Lea County, New Mexico, and hereby makes application for (i) approval of the Grin Queen Unit Agreement for the purpose of secondary recovery operations, (ii) for authority to institute a waterflood project in the Grin Queen Pool and for expansion thereof by administrative procedure and to assign special allowable to the wells within such project as are within a buffer zone, and (iii) for authority to curtail the production from all wells producing Unplugged Spongers (as such is defined in the Unit Agreement) within the Unit Area; and in support thereof states:



**I.**

**UNIT AGREEMENT**

1. That the proposed Unit Area covered by the Unit Agreement embraces 200 acres more or less, more particularly described as follows:

Section 3: NE1/4, NE1/4, NE1/4, NE1/4, NE1/4, NE1/4, NE1/4, NE1/4

Section 5: NE1/4, NE1/4, NE1/4, NE1/4  
Section 8: NE1/4, NE1/4

2. That the proposed Unit Area is comprised of 160 acres of State of New Mexico lands and 40 acres of privately owned lands.

3. Applicant is informed and believes, and upon such information and belief states: that the lands to be embraced in the proposed Unit Area cover all or substantially all of the available lands necessary for the effective and efficient institution of a secondary recovery operation by the institution of a waterflood project, and that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation, the protection of correlative rights and the prevention of waste of Unitized Substances.

4. That Great Western Drilling Company is designated as Unit Operator in the Unit Agreement, and as such is given authority under the terms thereof to carry on operations necessary and proper for the development and operation of the Unit Area and the recovery of Unitized Substances, subject to all applicable laws and regulations. That said Unit Agreement provides for the institution of a secondary recovery operation by the institution of a waterflood project in the Ouprock Queen Pool as more fully stated hereinafter.

5. That said ~~Unit Agreement~~ is in substantially the same form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico; it is believed that the field or area involved can be developed more economically and ~~efficiently~~ under the terms of said Unit Agreement to the end that the maximum recovery of Unitized Substances can be obtained ~~without the violation of correlative rights.~~

6. That application has been made ~~for the approval of said~~ Unit Agreement to the Commissioner of Public Lands of the State of New Mexico, and that prior to the hearing on this Application, informal approval of the form and content of said Unit Agreement will be obtained from the Commissioner. That after formal approval thereof by the Commissioner, a fully executed and approved copy of the Unit Agreement, and a copy of such approval by the Commissioner, will be filed with this Commission.

## II.

### WATERFLOOD PROJECT

1. A plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles of said proposed injection wells, and the formation from which said wells are producing or have produced is attached hereto and marked Exhibit 2 to this Application. Said plat also ~~indicates~~ the location (or Unit Operators) within said two mile radius.

2. All available logs of the proposed injection wells (being Wells "E" No. 4 and "F" No. 4) are filed herewith.

3. The proposed injection wells' casing program is as follows: the injection wells' casing is  $4\frac{1}{2}$  inch to  $5\frac{1}{2}$  inch casing set at the top of the Queen Formation pay zone. The proposed

method for testing casing before use of the injection wells will be in conformity with the established rules of the Commission, including Rule 187 and 702, and all other applicable law and regulation.

4. (a) The name and depth of the zone or formation into which injection will be made is the Queen Sand formation, which is defined in said Unit Agreement as and to mean that heretofore established underground reservoir, a member of the Queen formation of the Gaudalupe Series, a part of the Permian System, which is found at 3018 to 3086 feet in the Great Western Drilling Company State TF #1 Well located 660' FNL & 660' FNL, Sec. 2, T. 13 S., R. 31 E., N.M.P.M.

(b) The kind of fluid to be injected is water.

(c) The anticipated amount to be injected is estimated at approximately 500 barrels of water daily to "fill up" and thereafter a decreasing amount of water sufficient to maintain effective and efficient secondary recovery operations.

(d) The source of the injection fluid is fresh water to be obtained by purchase from the Unit Operator of the North Caprock Queen Unit No. 1, which Unit lies immediately west and adjacent to the Grain Queen Unit Area.

5. In view of the production and allowables assigned to surrounding wells, it is believed that the above lands and wells are best susceptible to a water flood project rather than a pressure maintenance project.

6. Applicant requests that an allowable be assigned to this waterflood project in accordance with applicable rule and regulation, and in this connection Applicant states that all of the initial project area is within a buffer zone and as such is entitled to a special allowable for the protection of correlative rights in conformity with Rule 701 of this Commission.

7. The initial project area proposed under this Application encompasses all of the Unit Area; however, the Unit Agreement provides for expansion of the Unit Area, and in the event of such expansion Applicant requests that the Order entered approving this waterflood project provide that an expansion of the waterflood project may be authorized by administrative procedure in accordance with applicable rule or regulation.

8. Applicant has made compliance with the Commission's Memorandum No. 5-38, dated January 31, 1938.

#### III.

#### CONVEYING

1. Applicant requests permission to convey the production of Unitized Substances from all leases within the exterior boundaries of the above Unit Area. Applicant is informed and believes, and upon such information and belief states: that such conveying will neither cause waste nor impair correlative rights and that all production so proposed to be conveyed is uniform and similar in composition, gravity, and component parts.

2. As an exception to Rule 309 (a) of this Commission, Applicant further requests authority to transport Unitized Substances from the unitized formations in the various leases within the exterior boundaries of the Unit Agreement prior to such Unitized Substances having been received and measured into tanks located on the individual leases. Applicant believes and states that adequate tanks and other equipment can be installed so that production from the Unit Area can be accurately determined at reasonable intervals without separately measuring such Unitized Substances in tanks located on the individual leases. In this exception it is proposed to transport such Unitized Substances from as many as 3 wells within the Unit Area to one central location

within the Unit Area for the purpose of receiving and measuring  
such production. Appropriate lines will be laid from each well  
into the central gathering system.

3. Applicant offers to comply with all reasonable rules  
and regulations of the Commission relative to the testing,  
storage and metering of the Unitized Substances requested to  
be so commingled, and Applicant further offers to file all  
required, or reasonably requested, reports in connection there-  
with.

WHEREFORE, Applicant respectfully requests that this Appli-  
cation be set before an Examiner Hearing at Santa Fe, New  
Mexico, and that upon such hearing the Commission enter its  
Order:

(a) Approving in principal as a proper conservation measure  
the Grain Queen Unit Agreement; provided however that notwith-  
standing any of the provisions contained in said Unit Agreement  
that such approval not be considered as waiving or relinquishing  
in any manner any right, duty or obligation which now, or may  
hereafter be, vested in the New Mexico Oil Conservation Com-  
mission by law relative to the supervision and control of opera-  
tions for the exploration and development of any land committed  
to the Grain Queen Unit Agreement, or relative to the production  
of oil or gas therefrom; and,

(b) Designate the Unit Area of the Grain Queen Unit as the  
lands described in Paragraph I. 1, hereinabove, and provide that  
the Unit Area may be expanded or contracted as provided in said  
Unit Agreement; and,

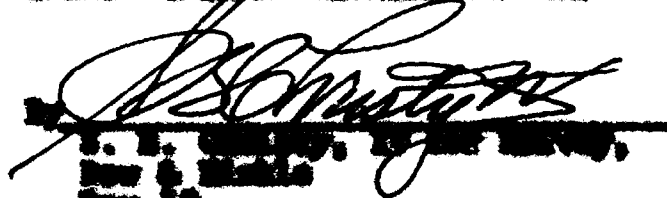
(c) Authorize Applicant as Operator of the Grain Queen Unit  
to institute a waterflood project in the manner and mode set forth  
in Paragraph II, hereinabove, including the authority to expand  
such waterflood project, in the event the Unit Area is expanded,  
by administrative procedure in accordance with applicable rule; and,

(c) ~~Assign~~ a special allowance to said waterflood project equal to the capacity of the wells within the waterflood project to produce ~~unified~~ ~~substances~~ and,

(d) Commingle the production from separate lenses within the Unit Area and to produce all ~~unified~~ ~~substances~~ within the Unit Area into a common test battery in the mode and manner set forth in Paragraph III hereinafore.

DATED this 3rd day of May, 1962.

GREAT WESTERN DRILLING COMPANY

  
J. E. MURPHY, President,  
Box 4, Santa Fe  
New Mexico  
Boswell, New Mexico

Attorneys for the Applicant