

CASE 2774: Application of C. W.
TRAINER for a waterflood project,
Hume-Queen Pool, Lea County, N.M.

1952/10
274

petition, Transcript,
and Exhibits, Etc.

DRAFT

JMD/esr
March 22, 1963

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:

*Assign Order no to
case 2773 before
this one*

CASE NO. 2774

Order No. R- 2455

APPLICATION OF C. W. TRAINER
FOR A WATERFLOOD PROJECT, HUME-
QUEEN POOL, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 20, 1963, 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 March, 1963, 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 Hume-Queen Unit Agreement has been approved by the Commission by Order No. R-____; that the Hume-Queen Unit Area comprises 1,240 acres, more or less, of State land in Township 16 South, Range 34 East, NMPM, Lea County, New Mexico, as more fully described in said order.

(3) That the applicant, C. W. Trainer, seeks permission to institute a waterflood project in the Hume-Queen Pool in the Hume-Queen Unit Area by the injection of water into the Penrose ~~sand~~ ^{Alto} of the Queen formation through 15 wells located within said unit area.

(4) That although some of the wells in the proposed project area are not in an advanced stage of depletion and cannot be regarded as "stripper" wells, the project should be classified as a waterflood project inasmuch as the majority of the wells are stripper wells and the proposed flood will be of the peripheral type encompassing the entire ~~area~~.

(5) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil.

(6) That the subject application should be approved and should be governed by the provisions of Rule 701.

IT IS THEREFORE ORDERED:

(1) That the applicant, C. W. Trainer, is hereby authorized to institute a ^{peripheral} waterflood project in the Hume-Queen Pool in the Hume-Queen Unit Area by the injection of water into the Penrose ~~Sand~~ ^{Section} of the Queen formation through the following-described 15 wells, located in Township 16 South, Range 34 East, NMPM, Lea County, New Mexico:

Pure Lea State "G" Well No. 5, Unit G, Section 7;

Pure Lea State "G" Well No. 4, Unit H, Section 7;

Seaman Unit Well No. 6, Unit K, Section 7;

Seaman Unit Well No. 7, Unit N, Section 7;

Pure Lea State "G" Well No. 3, Unit O, Section 7;

Donnelly Shell State Well No. 1, Unit A, Section 8;

Well to be drilled in Unit E, Section 8;

C. W. Trainer State "S" Well No. 1, Unit F, Section 8;

Mabee Royalties State "A" Well No. 1, Unit G, Section 8;

Burk Royalty Shell State Well No. 2-A, Unit M, Section 8;

Burk Royalty Shell State Well No. 1, Unit N, Section 8;

Well to be drilled in Unit P, Section 8;

Shell State "WL" Well No. 2, Unit L, Section 9;

Shell State "WL" Well No. 1, Unit E, Section 9;

(6)(5) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil.

(6)(5) That the subject application should be approved and should be governed by the provisions of Rule 701.

IT IS THEREFORE ORDERED:

(1) That the applicant, C. W. Trainer, is hereby authorized to institute a ^{peripheral} waterflood project in the Hume-Queen Pool in the Hume-Queen Unit Area by the injection of water into the Penrose ~~Sand~~ ^{Section} of the Queen formation through the following-described 15 wells, located in Township 16 South, Range 34 East, NMPM, Lea County, New Mexico:

Pure Lea State "G" Well No. 5, Unit G, Section 7;

Pure Lea State "G" Well No. 4, Unit H, Section 7;

Seaman Unit Well No. 6, Unit K, Section 7;

Seaman Unit Well No. 7, Unit N, Section 7;

Pure Lea State "G" Well No. 3, Unit O, Section 7;

Donnelly Shell State Well No. 1, Unit A, Section 8;

✓ Well to be drilled in Unit E, Section 8;

C. W. Trainer State "S" Well No. 1, Unit F, Section 8;

Mabee Royalties State "A" Well No. 1, Unit G, Section 8;

Burk Royalty Shell State Well No. 2-A, Unit M, Section 8;

Burk Royalty Shell State Well No. 1, Unit N, Section 8;

Well to be drilled in Unit P, Section 8;

Shell State "WL" Well No. 2, Unit L, Section 9;

Shell State "WL" Well No. 1, Unit E, Section 9;

C. W. Trainer State "SU" Well No. 1, Unit B, Section 17.

(2) That the subject waterflood project shall be governed by the provisions of Rule 701, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

-3-
CASE No. 2774

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) 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

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

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

March 14, 1963

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

Dear Mr. Porter:

Reference is made to the application of C. W. Trainer for approval of the Hume Queen Waterflood project located in Township 16 South, Range 34 East. Reference is also made to a letter from Mr. C. W. Trainer under date of March 8, 1963 which refers to this waterflood case as No. 2774. The letter is addressed to me and a copy has been sent to your office. The method of casing, cementing, tubing, injection, etc., are set forth in the letter and this office offers no objection to the granting of the application, provided the casing, tubing, packer and injection method are in accordance with the letter.

FEI/ma
cc-C. W. Trainer
F. H. Hennighausen

Very truly yours,

S. E. Reynolds
State Engineer

By:
Frank E. Irby
Chief
Water Rights Division

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	_____
CASE NO.	2774

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

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(17) LOCAL TIME at point of destination
1963 MAR 13 1 AM 13 25

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L HBA028 PD=HOBBS NMEX 18 1005A MST=
NEW MEXICO OIL CONSERVATION COMMISSION,
ATTN A L PORTER JR= SANTA FE NMEX=

CITIES SERVICE OIL COMPANY RECOMMENDS APPROVAL OF
CASES 2733 AND 2774 CONCERNING THE HUME QUEEN UNIT
AND WATER FLUID PROPOSALS=

R W ELY DIVN SUPT CITIES SERVICE OIL CO=

=2773 2774=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

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W. P. MARSHALL, PRESIDENT

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.LA096 SSF108

L RWA059 PD=ROSWELL NMEX 18 1201P MST=
NEW MEXICO OIL CONSERVATION COMMISSION=
SANTA FE NMEX=

IN RE CASES NOS 2773 AND 2774 DOCKET OF MARCH 20 1963
SHELL OIL COMPANY AS OWNER OF A 27.6 PER CENT INTEREST
IN THE HUME QUEEN UNIT SUPPORTS THE APPLICATION OF C W
TRAINER FOR PERMISSION TO INSTITUTE A SECONDARY RECOVERY
PROJECT IN THE HUME QUEEN POOL AND HIS APPLICATION FOR
APPROVAL OF THE HUME QUEEN UNIT AGREEMENT=

R L RANKIN DIVISION PRODUCTION MANAGER
SHELL OIL COMPANY P O BOX 1858 ROSWELL NMEX=

=2773 2774 20 1963 27.6

SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



THE PURE OIL COMPANY

SOUTHERN PRODUCING DIVISION • MIDLAND DISTRICT
P. O. BOX 671 • MIDLAND, TEXAS • MUTUAL 2-5725

March 14, 1963

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

RE: Case No. 2273 and No. 2274

Gentlemen:

The Pure Oil Company, as an interest holder in the proposed Hume Queen Unit and Water Flood Project, supports the application of C. W. Trainer for unitization and water flood of this field.

The issuance of orders to allow the unitization and water flood of this field would be in the best interest of conservation, and it is recommended that they be so permitted.

Yours very truly,

J. R. Murphey, Jr.
District Petroleum Engineer

JRM/cs

UNIT AGREEMENT
HUME QUEEN UNIT
LEA COUNTY, NEW MEXICO

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UNIT AGREEMENT
HUME QUEEN UNIT
LEA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the ____ day of _____, 1963, by the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof;

WITNESSETH:

WHEREAS, In the interest of the public welfare and to promote conservation and increase the ultimate recovery of oil, gas, and associated minerals from the Hume Queen Field, in Lea County, State of New Mexico, and to protect the rights of the owners of interests therein, it is deemed necessary and desirable to enter into this agreement to unitize the Oil and Gas Rights in and to the Unitized Formation in order to conduct a secondary recovery, pressure maintenance, or other recovery program as herein provided; and

WHEREAS, The Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature, Laws of 1951, Chapter 7, Article 2, Section 41 New Mexico Statutes, 1953, Annotated to consent to or approve this agreement on behalf of the State of New Mexico, insofar as it covers and includes lands and mineral interest of the State of New Mexico; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by law (Chap. 72, Laws of 1935, as amended by Chap 193, Laws of 1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949) to approve this agreement and the conservation provisions hereof;

NOW, THEREFORE, In consideration of the premises and of the mutual agreements herein contained; it is agreed as follows:

ARTICLE 1

DEFINITIONS

As used in this agreement, the terms herein contained shall have the following meaning:

1.1 Unit Area means the lands described by Tracts in Exhibit A and shown on Exhibit B as to which this agreement become effective or to which it may be extended as herein provided.

1.2 Unitized Formation means that subsurface portion of the Unit Area commonly known or described as follows: The Queen Sand Formation encountered in the drilling of the J. Don Hudgens Phillips State No. 3 now known as the C. W. Trainer Phillips State No. 3 well between the depths of Three Thousand Nine Hundred and Twenty Two (3922) feet and Three Thousand Nine Hundred and Forty Four (3944) feet as shown by the Gamma Ray-Neutron Log of said well which is located 1980 feet from South line and 660 feet from East line of Section 8, Township 16 South, Range 34 East, Lea County, New Mexico.

1.3 Unitized Substances means all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate, and all associated and constituent liquid or liquefiable hydrocarbons within or produced from the Unitized Formation.

1.4 Working Interest means an interest in Unitized Substances by virtue of a lease, operating agreement, fee title, or otherwise, including a carried interest, which interest is chargeable with and obligated to pay or bear, either in cash or out of production or otherwise, all or a portion of the cost of drilling, developing, producing, and operating the Unitized Formation. Any interest in Unitized Substances which is a Working Interest as of the date the owner thereof executes or ratifies this Agreement shall thereafter be treated as a Working Interest for all purposes of this Agreement.

1.5 Royalty Interest means a right to or interest in any portion of the Unitized Substances or proceeds thereof other than a Working Interest.

1.6 Royalty Owner means a party hereto who owns a Royalty Interest.

1.7 Working Interest Owner means a party hereto who owns a Working Interest. The owner of oil and gas rights that are free of lease or other instrument conveying the Working Interest to another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.

1.8 Tract means each parcel of land having a common ownership described as such and given a Tract number in Exhibit A.

1.9 Unit Operating Agreement means that Agreement entitled "Unit Operating Agreement, Hume Queen Unit, Lea County, New Mexico" of the same effective date as the effective date of this Agreement and which is entered into by Working Interest Owners.

1.10 Unit Operator means the Working Interest Owner designated by Working Interest Owners under the Unit Operating Agreement to develop and operate the Unitized Formation, acting as operator and not as a Working Interest Owner.

1.11 Tract Participation means the percentage shown on Exhibit A for allocating Unitized Substances to a Tract under this agreement.

1.12 Unit Participation of each Working Interest Owner means the sum of the percentages obtained by multiplying the Working Interest of such Working Interest Owner in each Tract by the Tract Participation of such Tract.

1.13 Outside Substances means all substances obtained from any source other than the Unitized Formation and which are injected into the Unitized Formation.

1.14 Total Tract Production means the total oil production from the Unitized Formation under each Tract from January 1, 1962, to November 1, 1962, inclusive as reported to the Oil Conservation Commission of the State of New Mexico by operators of the individual Tracts.

1.15 Total Unit Area Production means the summation of the oil production defined in Section 1.14 of all Tracts in the Unit Area.

1.16 Tract Well Factor means the total well points for all wells on a Tract where a producer equals 3 points, a cased dry hole equals 2 points, and an uncased dry hole equals 1 point.

1.17 Total Unit Area Well Factor means the summation of the Tract Well Factors as defined in Section 1.16 for all Tracts in the Unit Area.

1.18 Tract Cumulative Production means the total cumulative oil production from the Unitized Formation under each Tract to November 1, 1962, as reported to the Oil Conservation Commission of the State of New Mexico by operators of the individual Tracts.

1.19 Total Unit Area Cumulative Production means the summation of the cumulative oil production defined in Section 1.18 of all Tracts in the Unit Area.

1.20 Oil and Gas Rights means the right to explore, develop, and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

1.21 Unit Operations means all operations conducted by Working Interest Owners or Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of the development and operations of the Unitized Formation for the production of Unitized Substances.

1.22 Unit Equipment means all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

1.23 Unit Expense means all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this agreement and the Unit Operating Agreement for or on account of Unit Operations.

1.24 Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural include the singular, and the neuter gender include the masculine and the feminine.

ARTICLE 2

EXHIBITS

2.1 Exhibits. Attached hereto are the following exhibits which are incorporated herein by reference:

2.1.1 Exhibit A, which is a schedule that describes each Tract in the Unit Area and shows its Tract Participation.

2.1.2 Exhibit B, which is a map that shows the boundary lines of the Unit Area and the Tracts therein.

2.2 Reference to Exhibits. When reference herein is made to an exhibit, the reference is to the Exhibit as originally attached or, if revised, to the latest revision.

2.3 Exhibits Considered Correct. An exhibit shall be considered to be correct until revised as herein provided.

2.4 Correcting Errors. The shapes and descriptions of the respective Tracts have been established by using the best information available. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the effective date hereof, should be divided into more than one Tract, or that any mechanical miscalculation has been made, Unit Operator, with the approval of Working Interest Owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any re-evaluation of engineering or geological interpretations used in determining Tract Participation. Each such revision of an exhibit shall be effective at 7:00 a.m. on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit.

2.5 Filing Revised Exhibits. If an exhibit is revised pursuant to this agreement, Unit Operator shall certify and file the revised exhibit with the Commissioner of Public Lands of the State of New Mexico and for record with the County Clerk of Lea County, New Mexico.

ARTICLE 3

CREATION AND EFFECT OF UNIT

3.1 Oil and Gas Rights Unitized. Subject to the provisions of this agreement, all Oil and Gas Rights of Royalty Owners in and to the lands described in Exhibit A, and all Oil and Gas Rights of Working Interest Owners in and to said lands, are hereby unitized insofar as the respective Oil and Gas Rights pertain to the Unitized Formation, so that Operations may be conducted as if the Unitized Formation had been included in a single lease executed by all Royalty Owners, as lessors, in favor of all Working Interest Owners, as lessees, and as if the lease had been subject to all of the provisions of this agreement.

3.2 Personal Property Excepted. All lease and well equipment, materials, and other facilities heretofore or hereafter placed by any of the Working Interest Owners on the lands covered hereby shall be deemed to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The rights and interests therein as among Working

Interest Owners are covered by the Unit Operating Agreement.

3.3 Amendment of Leases and Other Agreements. The provisions of the various leases, agreements, division and transfer orders, or other instruments covering the respective Tracts or the production therefrom are amended to the extent necessary to make them conform to the provisions of this agreement, but otherwise shall remain in effect.

3.4 Continuation of Leases and Term Royalties. Unit Operations conducted on any part of the Unit Area shall be considered with respect to leases and term royalties as follows:

3.4.1 Operations, including drilling operations, conducted with respect to the Unitized Formation on any part of the Unit Area, or production from any part of the Unitized Formation, except for the purpose of determining payments to Royalty Owners, shall be considered as operations upon or production from each Tract, and such operations or production shall continue in effect each lease or term royalty interest as to all lands covered thereby just as if such operations had been conducted and a well had been drilled on and was producing from each Tract.

3.4.2 Any lease embracing lands of the State of New Mexico which is made subject to this Agreement shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.

3.4.3 Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto, shall be segregated as to the portion committed and that portion not committed, and the terms of such lease shall apply separately as to such segregated portions commencing as of the effective date hereof. Notwithstanding any of the provisions of this agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease (whether within or without the Unit Area), (i) if, and for so long as Unitized Substances are

capable of being produced in paying quantities from some part of the lands embraced in such lease committed to this agreement, or (ii) if, and for so long as some part of the lands embraced in such State lease are allocated Unitized Substances; or (iii) if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced therein and for so long as such operations are being diligently prosecuted, and if they result in the production of Unitized Substances, said lease shall continue in full force and effect as to all the lands embraced therein, as provided in (i) and (ii) above.

3.5 Titles Unaffected by Unitization. Nothing herein shall be construed to result in the transfer of title to the Oil and Gas Rights by any party hereto to any other party or to Unit Operator. The intention is to provide for the cooperative development and operation of the Tracts and for the sharing of Unitized Substances as herein provided.

3.6 Injection Rights. Royalty Owners hereby grant unto Working Interest Owners the right to inject into the Unitized Formation any substances in whatever amounts Working Interest Owners deem expedient for Unit Operations, including the right to drill and maintain injection wells on the Unit Area and to use producing or abandoned oil or gas wells or wells that have never been produced for such purposes.

3.7 Development Obligation. Nothing herein shall relieve Working Interest Owners from the obligation to develop reasonably as a whole the lands and leases committed hereto.

ARTICLE 4

PLAN OF OPERATIONS

4.1 Unit Operator. Working Interest Owners are as of the effective date of this Agreement entering into the Unit Operating Agreement designating C. W. Trainer as Unit Operator. Unit Operator shall have the exclusive right to conduct Unit Operations. The operations shall conform to the provisions of this Agreement and the Unit Operating Agreement. If there is any conflict between such Agreements this Agreement shall govern.

4.2 Operating Methods. To the end that the quantity of Unitized Substances ultimately recoverable may be increased and waste prevented, Working Interest Owners shall, with diligence and in accordance with good engineering and production practices, engage in methods of operation of the Unit Area which from time to time will in their judgment be conducive to that end within practicable economic limits, including water flooding operations and such other pressure maintenance, repressuring and secondary recovery operations as may be deemed by them to be necessary or proper to achieve that end.

4.3 Change of Operating Methods. Nothing herein shall prevent Working Interest Owners from discontinuing or changing in whole or in part any method of operations which, in their opinion, is no longer in accord with good engineering or production practices. Other methods of operation may be conducted or changes may be made by Working Interest Owners from time to time if determined by them to be feasible, necessary, or desirable to increase the ultimate recovery of Unitized Substances.

ARTICLE 5

TRACT PARTICIPATION

5.1 Tract Participation. The Tract Participation of each Tract is shown on Exhibit A. The participation percentages shown in Exhibit A were determined in accordance with the following formula:

$$\begin{array}{rcl}
 \frac{\text{Total Tract Production}}{\text{Total Unit Area Production}} & \times & 25 \\
 \text{plus} & & \\
 \frac{\text{Tract Well Factor}}{\text{Total Unit Area Well Factor}} & \times & 25 \\
 \text{plus} & & \\
 \frac{\text{Tract Cumulative Production}}{\text{Total Unit Area Cumulative Production}} & \times & 50 \\
 & = & \text{Tract Participation Percentage}
 \end{array}$$

5.2 Relative Tract Participations. If the Unit Area is enlarged or reduced, the revised Tract Participations of the Tracts remaining in the Unit Area and which were within the Unit Area prior to the enlargement or reduction shall remain in the same ratio one to another.

ARTICLE 6

ALLOCATION OF UNITIZED SUBSTANCES

6.1 Allocation to Tracts. All Unitized Substances produced and saved shall be allocated to the several Tracts in accordance with the respective Tract Participations effective during the period that the Unitized Substances were produced. The amount of Unitized Substances allocated to each Tract, regardless of whether it is more or less than the actual production of Unitized Substances from the well or wells, if any, on such Tract, shall be deemed for all purposes to have been produced from such tract.

6.2 Distribution Within Tracts. The Unitized Substances allocated to each Tract shall be distributed among, or accounted for to, the parties entitled to share in the production from such Tract in the same manner, in the same proportions, and upon the same conditions as they would have participated and shared in the production from such Tract, or in the proceeds thereof, had this agreement not been entered into, and with the same legal effect. If any Oil and Gas Rights in a Tract hereafter become divided and owned in severalty as to different parts of the Tract, the owners of the divided interest, in the absence of an agreement providing for a different division, shall share in the Unitized Substances allocated to the Tract, or in the proceeds thereof, in proportion to the surface acreage of their respective parts of the Tract.

6.3 Taking Unitized Substances in Kind. The Unitized Substances allocated to each Tract shall be delivered in kind to the respective parties entitled thereto by virtue of the ownership of Oil and Gas Rights therein or by purchase from such owners. Such parties shall have the right to construct, maintain, and operate within the Unit Area all necessary facilities for that purpose, provided that they are so constructed, maintained, and operated as not to interfere with the Unit Operations. Any extra expenditures incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the receiving party. If a Royalty Owner has the right to take in kind a share of Unitized Substances and fails to do so, the Working Interest Owner whose Working Interest is subject to such Royalty Interest shall be entitled to take in kind such share of the Unitized Substances.

6.4 Failure to Take in Kind. If any party fails to take in kind or separately dispose of its share of Unitized Substances, Unit Operator shall have the right, but not the obligation, for the time being and subject to revocation at will by the party owning the share, to purchase for its own account or sell to others such share at not less than the average market price for all such sales from the Unitized Formation; provided that, all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year. The proceeds of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto. If, under the provisions of this paragraph, Unit Operator contracts to sell in interstate commerce any gas not taken in kind or separately disposed of by the owning party, Unit Operator shall give such owning party ninety (90) days notice of such sale.

6.5 Responsibility for Royalty Settlements. Any party receiving in kind or separately disposing of all or part of the Unitized Substances allocated to any Tract or receiving the proceeds therefrom shall be responsible for the payment thereof to the persons entitled thereto, and shall indemnify all parties hereto, including Unit Operator, against any liability for all royalties, overriding royalties, production payments, and all other payments chargeable against or payable out of such Unitized Substances or the proceeds therefrom.

ARTICLE 7

PRODUCTION AS OF THE EFFECTIVE DATE

7.1 Oil in Lease Tanks. Unit Operator shall gauge all lease and other tanks within the Unit Area to ascertain the amount of merchantable oil produced from the Unitized Formation in such tanks, above the pipe line connections, as of 7:00 a.m. on the effective date hereof. The oil that is a part of the prior allowable on the wells from which it was produced shall remain the property of the parties entitled thereto the same as if the Unit had not been formed. Any such oil not promptly removed may be sold by the Unit Operator for the account of the parties entitled thereto, subject to the payment of all royalties, overriding royalties, production payments, and all other payments under the provisions of the applicable lease or other contracts. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after the effective date hereof.

7.2 Overproduction. If, as of the effective date hereof, any Tract is overproduced with respect to the allowable of the wells on that Tract and the amount of overproduction has been sold or otherwise disposed of, such overproduction shall be regarded as a part of the Unitized Substances produced after the effective date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

ARTICLE 8

USE OR LOSS OF UNITIZED SUBSTANCES

8.1 Use of Unitized Substances. Working Interest Owners may use as much of the Unitized Substances as they deem necessary for Unit Operations, including but not limited to the injection thereof into the Unitized Formation.

8.2 Royalty Payments. No royalty, overriding royalty, production, or other payments shall be payable upon, or with respect to, Unitized Substances used or consumed in Unit Operations, or which otherwise may be lost or consumed in the production, handling, treating, transportation, or storing of Unitized Substances.

ARTICLE 9

TRACTS TO BE INCLUDED IN UNIT

9.1 Qualification of Tracts. On and after the effective date hereof and until the enlargement or reduction thereof, the Unit Area shall be composed of the Tracts listed in Exhibit A that qualify as follows:

9.1.1 Each tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this agreement and as to which Royalty Owners owning eighty five percent (85%) or more of the Royalty Interest have become parties to this agreement.

9.1.2 Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this agreement, and as to which Royalty Owners owning less than eighty five percent (85%) of the Royalty Interest have become parties to this agreement, and as to which (a) all Working Interest Owners in such Tract have joined in a request for the inclusion of such Tract in the Unit Area, and as to which (b) eighty five percent (85%) of the combined voting interests of Working Interest Owners in all Tracts that meet the requirements of Section 9.1.1 have voted in favor of the inclusion of such Tract. For the purpose of this Section 9.1.2, the voting interests of a Working Interest Owner shall be equal to the ratio that its Unit Participation attributable to Tracts that qualify under Section 9.1.1 bears to the total Unit Participation of all Working Interest Owners attributable to all Tracts that qualify under Section 9.1.1.

9.1.3 Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become parties to this agreement, regardless of the percentage of Royalty Interest therein that is committed hereto; and as to which (a) the Working Interest Owner who operates the Tract and all of the other Working Interest Owners in such Tract who have become parties to this agreement have joined in a request for inclusion of such Tract in the Unit Area, and have executed and delivered an indemnity agreement agreeing to indemnify and hold harmless the other Working Interest Owners in the Unit Area, their successors and assigns, against all claims and demands that may be made by the owners of Working Interests in such Tract who are not parties to this agreement, and which arise out of the inclusion of the Tract in the Unit Area; and as to which (b) eighty five percent (85%) of the combined voting interest of Working Interest Owners in all Tracts that meet the requirements of Sections 9.1.1 and 9.1.2 have voted in favor of the inclusion of such Tract and to accept the indemnity agreement. For the purpose of this Section 9.1.3, the voting interest of each Working Interest Owner shall be equal to the ratio that its Unit Participation attributable to Tracts that qualify under Section 9.1.1 and 9.1.2 bears to the total Unit Participation of all Working Interest Owners attributable to all Tracts that qualify under Sections 9.1.1 and 9.1.2. Upon the inclusion of such a Tract in the Unit Area, the Unit Participation that would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreement, in proportion to their respective Working Interests in the Tract.

9.2 Subsequent Commitment of Interest to Unit. After the effective date hereof, the commitment of any interest in any Tract within the Unit Area shall be upon such terms as may be negotiated by Working Interest Owners and the owner of such interest and upon approval by the Commissioner of Public Lands.

9.3 Revision of Exhibits. If any of the Tracts in Exhibit A fail to qualify for inclusion in the Unit Area on the effective date hereof Unit Operator shall recompute, using the original basis of computation, the Tract Participation of each of the qualifying Tracts and shall revise Exhibits A and B accordingly, to be effective as of the effective date hereof upon approval by the Commissioner of Public Lands of the State of New Mexico.

ARTICLE 10

TITLES

10.1 Removal of Tract from Unit Area. If a Tract ceases to have sufficient Working Interest Owners or Royalty Owners committed to this agreement to meet the conditions of Article 9 because of failure of title of any party hereto, such Tract shall be removed from the Unit Area effective as of the first day of the calendar month in which the failure of title is finally determined; however, the Tract shall not be removed from the Unit Area, if, within ninety (90) days of the date of final determination of the failure of title, the Tract requalifies under a Section of Article 9.

10.2 Revision of Exhibits. If a Tract is removed from the Unit Area because of the failure of title, Unit Operator, subject to Section 5.2, shall recompute the Tract Participation of each of the Tracts remaining in the Unit Area and shall revise Exhibits A and B accordingly. The revised exhibits shall be effective as of the first day of the calendar month in which such failure of title is finally determined.

10.3 Working Interest Titles. If title to a Working Interest fails, the rights and obligations of Working Interest Owners by reason of the failure of title shall be governed by the Unit Operating Agreement.

10.4 Royalty Owner Titles. If title to a Royalty Interest fails, but the Tract to which it relates is not removed from the Unit Area, the party whose title failed shall not be entitled to share hereunder with respect to such interest.

10.5 Production Where Title is in Dispute. If the title or right of any party claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the discretion of Working Interest Owners shall either:

(a) require that the party to whom such Unitized Substances are delivered or to whom the proceeds thereof are paid, furnish security for the proper accounting therefor to the rightful owner if the title or right of such party fails in whole or in part, or

(b) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds thereof until such time as the title or right thereto is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so impounded shall be paid to the party rightfully entitled thereto.

10.6 Payment of Taxes to Protect Title. The owners of (1) the surface rights to lands within the Unit Area, (2) the several mineral or Royalty Interests in the lands, and (3) the improvements located on the lands not utilized for Unit Operations, shall individually be responsible for the rendition and assessment for ad valorem tax purposes of all such property, and for the payment of such taxes, except as otherwise provided in any contract or agreement between such owners and a Working Interest Owner. If any ad valorem taxes are not paid by such owner responsible therefor when due, Unit Operator may, with approval of Working Interest Owners, at any time prior to tax sale, or expiration of period of redemption after tax sale, pay the same, redeem such property, and discharge such tax liens as may arise through non-payment. Any such payment shall be treated as an item of Unit Expense. Unit Operator shall, if possible, withhold from any proceeds derived from the sale of Unitized Substances otherwise due to any delinquent taxpayer or taxpayers an amount sufficient to defray the costs of such payment or redemption, such withholding to be credited to the joint account. Such withholding shall be without prejudice to any other remedy, either at law or at equity, which may be available for exercise by the Unit Operator or by the Working Interest Owners.

ARTICLE 11

EASEMENTS OR USE OF SURFACE

11.1 Grant of Easements. The parties hereto, to the extent of their rights and interest, hereby grant to Working Interest Owners the right to use as much of the surface of the land within the Unit Area as may reasonably be necessary for Unit Operations; provided that, nothing herein shall be construed as leasing or otherwise conveying to Working Interest Owners a site for a water, gas injection, processing or other plant, or camp site.

11.2 Use of Water. Working Interest Owners shall have free use of water from the Unit Area for Unit Operations, except water from any well, lake, pond, or irrigation ditch of a Royalty Owner.

11.3 Surface Damages. Working Interest Owners shall pay the owner for damages to growing crops, timber, fences, improvements, and structures on the Unit Area that result from Unit Operations.

ARTICLE 12

ENLARGEMENTS OF UNIT AREA

12.1 Enlargements of Unit Area. The Unit Area may be enlarged to include acreage reasonably proved to be productive, upon such terms as may be determined by Working Interest Owners and upon approval by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico, including but not limited to, the following:

12.1.1 The acreage shall qualify under a Section of Article 9.

12.1.2 The participation to be allocated to the acreage shall be reasonable, fair, and based on all available information.

12.1.3 There shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof; however, this limitation shall not prevent an adjustment of investment by reason of the enlargement.

12.1.4 The execution or ratification of this Agreement, by a person owning a Royalty Interest in any Tract being brought into

the Unit Area by an enlargement, shall have the effect of committing to the Unit his Royalty Interest in each Tract being added to the Unit, as well as in each Tract previously included in the Unit Area.

12.2 Determination of Tract Participation. Unit Operator, subject to Section 5.2, shall determine the Tract Participation of each Tract within the Unit Area as enlarged, and shall revise Exhibits A and B accordingly.

12.3 Effective Date. The effective date of any enlargement of the Unit Area shall be 7:00 a.m. on the first day of the calendar month following approval by the Commissioner of Public Lands and compliance with conditions for enlargement as specified by Working Interest Owners, approval of the enlargement by the appropriate governmental authority, if required, and the filing for record of revised Exhibits A and B in the records of the County or Counties in which this agreement is recorded.

ARTICLE 13

CHANGE OF TITLE

13.1 Covenant Running With the Land. This agreement shall extend to, be binding upon, and inure to the benefit of, the respective heirs, devisees, legal representatives, successors, and assigns of the parties hereto, and shall constitute a covenant running with the lands, leases, and interest covered hereby.

13.2 Notice of Transfer. Any conveyance of all or any part of any interest owned by any party hereto with respect to any Tract shall be made expressly subject to this agreement. No change of title shall be binding on the Unit Operator, or upon any party hereto other than the party so transferring, until the first day of the calendar month next succeeding the date of receipt by Unit Operator of a photocopy or a certified copy of the recorded instrument evidencing such change of ownership.

13.3 Waiver of Rights to Partition. Each party hereto covenants that, during the existence of this agreement, it will not resort to any action to partition the Unit Area or the Unit Equipment, and to that extent waives the benefits of all laws authorizing such partition.

13.4 New Interest. If any Working Interest Owner shall, after executing this agreement, create any overriding royalty, production payment, or

other similar interest, hereafter referred to as "New Interest", out of its interest subject to this agreement, such New Interest shall be subject to all the terms and provisions of this agreement. In the event the Working Interest Owner, owning the interest from which the New Interest was created, withdraws from this agreement under the terms of Section 17.1 of the Unit Operating Agreement, or fails to pay any expenses and costs chargeable to it under this agreement and the production to the credit of such Working Interest Owner is insufficient for that purpose, the owner of the New Interest will be liable for the pro rata portion of all costs and expenses for which the original Working Interest Owner, creating such New Interest, would have been liable by virtue of his ownership of the New Interest had the same not been transferred. In this event, the lien provided in Section 20.3 may be enforced against such New Interest. If the owner of the New Interest bears a portion of the costs and expenses or the same is enforced against such New Interest, the owner of the New Interest will be subrogated to the rights of the Unit Operator with respect to the interest primarily chargeable with such costs and expenses.

ARTICLE 14

RELATIONSHIP OF PARTIES

14.1 No Partnership. The duties, obligations, and liabilities of the parties hereto are intended to be several and not joint or collective. This agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation, or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligations as herein provided.

14.2 No Sharing of Market. This agreement is not intended to provide, and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale, or marketing of Unitized Substances.

14.3 Royalty Owners Free of Costs. This agreement is not intended to impose, and shall not be construed to impose, upon any Royalty Owner any obligation to pay for Unit Expense unless such Royalty Owner is otherwise so obligated.

14.4 Information to Royalty Owners. Each Royalty Owner upon written request therefor shall be entitled to all information in possession of Unit Operator to which such Royalty Owner is entitled by an existing agreement with any Working Interest Owner.

ARTICLE 15

LAWS AND REGULATIONS

15.1 Laws and Regulations. This agreement shall be subject to the conservation laws of the State of New Mexico; to the valid rules, regulations, and orders of the Oil Conservation Commission of New Mexico; and to all other applicable federal, state, and municipal laws, rules, regulations, and orders.

ARTICLE 16

FORCE MAJEURE

16.1 Force Majeure. All obligations imposed by this agreement on each party, except for the payment of money, shall be suspended while compliance is prevented, in whole or in part, by a strike, fire, war, civil disturbance, act of God; by federal, state, or municipal laws; by any rule, regulation, or order of a governmental agency; by inability to secure materials; or by any other cause or causes beyond reasonable control of the party whether similar or dissimilar to those enumerated. No party shall be required against its will to adjust or settle any labor dispute. Neither this agreement nor any lease or other instrument subject hereto shall be terminated by reason of suspension of Unit Operations due to any one or more of the causes set forth in this Article.

ARTICLE 17

EFFECTIVE DATE

17.1 Effective Date. This agreement shall become binding upon each party as of the date such party signs the instrument by which it becomes a party hereto, and, unless sooner terminated as provided in Section 17.2, shall become effective as to qualified Tracts at the time and date as determined by the Working Interest Owners in all the qualified Tracts, and set forth in a certificate filed for record by Unit Operator with the County Clerk in Lea County, New Mexico. The certificate shall also recite the percentage of the Unit Area represented by the Tracts qualified under Article 9,

the book and page in which a counterpart of this agreement has been recorded, and the case number and order number of the order of approval by Governmental authority, if obtained. The certificate shall not be filed until after the following requirements have been met:

17.1.1 Tracts comprising eighty five percent (85%) or more of the Unit Area as shown on the original Exhibit B have qualified under the provisions of Article 9.

17.1.2 At least one counterpart of this agreement has been filed for record by Unit Operator in Lea County, New Mexico.

17.1.3 This agreement has been approved by the Oil Conservation Commission of the State of New Mexico.

17.1.4 This agreement has been approved by the Commissioner of Public Lands of the State of New Mexico.

17.2 Ipsa Facto Termination. If the requirements of Section 17.1 are not accomplished on or before December 31, 1963, this agreement shall ipso facto terminate on that date (hereinafter called "termination date") and thereafter be of no further effect, unless prior thereto Working Interest Owners owning a combined Unit Participation of at least eighty five percent (85%) have become parties to this agreement and such parties owning not less than sixty five percent (65%) Unit Participation have decided to extend the termination date for a period not to exceed six (6) months. If the termination date is so extended and the requirements of Section 17.1 are not accomplished on or before the extended termination date, this agreement shall ipso facto terminate on the extended termination date and thereafter be of no further effect. For the purpose of this section, Unit Participation shall be as shown on the original Exhibit C attached to the Unit Operating Agreement.

ARTICLE 18

TERM

18.1 Term. The term of this agreement shall be for the time that Unitized Substances are produced in paying quantities and as long thereafter as Unit Operations are conducted without a cessation of more than one hundred eighty (180) consecutive days, unless sooner terminated by Working Interest Owners in the manner herein provided.

18.2 Termination by Working Interest Owners. This agreement may be terminated by Working Interest Owners having a combined Unit Participation of at least eighty five percent (85%) whenever such Working Interest Owners determine that Unit Operations are no longer profitable or feasible.

18.3 Effect of Termination. Upon termination of this agreement, the further development and operation of the Unitized Formation as a unit shall be abandoned, Unit Operations shall cease, and thereafter the parties shall be governed by the provisions of the leases and other instruments affecting the separate Tracts.

18.4 Salvaging Equipment Upon Termination. If not otherwise granted by the leases or other instruments affecting each Tract unitized under this agreement, Royalty Owners hereby grant Working Interest Owners a period of six (6) months after the date of termination of this agreement within which to salvage and remove Unit Equipment.

ARTICLE 19

EXECUTION

19.1 Original, Counterpart, or Other Instrument. A person may become a party to this agreement by signing the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof. The signing of any such instrument shall have the same effect as if all the parties had signed the same instrument..

19.2 Joinder in Dual Capacity. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests that may be owned or controlled by such party.

ARTICLE 20

GENERAL

20.1 Amendments Affecting Working Interest Owners. Amendments hereto relating wholly to Working Interest Owners may be made if signed by all Working Interest Owners.

20.2 Action by Working Interest Owners. Any action or approval required by Working Interest Owners hereunder shall be in accordance with the provisions of the Unit Operating Agreement.

20.3 Lien of Unit Operator. Unit Operator shall have a lien upon the interests of Working Interest Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

IN WITNESS WHEREOF, The parties hereto have executed this agreement on the date opposite their respective signatures.

Date: _____

C. W. TRAINER

Address: 205 North Linam
P. O. Box 2222
Hobbs, New Mexico

UNIT OPERATOR & WORKING INTEREST
OWNER

JACKIE TRAINER, his wife

Date: _____

ATTEST:

By _____

Address _____

Secretary

Date: _____

Date: _____

Date: _____

Date: _____

STATE OF NEW MEXICO)
COUNTY OF LEA) ss.

The foregoing instrument was acknowledged before me this 9th
day of March, 1963, by C. W. TRAINER and JACKIE TRAINER, his wife.

NOTARY PUBLIC

My Commission Expires:

January 23, 1967.

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1963, by _____,
of _____, a _____ corporation,
on behalf of said corporation.

NOTARY PUBLIC

My Commission Expires:

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1963, by _____
_____.

NOTARY PUBLIC

My Commission Expires:

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____
day of _____, 1963, by _____
_____.

NOTARY PUBLIC

My Commission Expires:

_____.

EXHIBIT A
TO
UNIT AGREEMENT
HOME QUEEN UNIT
LEA COUNTY, NEW MEXICO
TRACT DESCRIPTION, TRACT OWNERSHIP
AND TRACT PARTICIPATION PERCENTAGE

<u>Tract No.</u>	<u>Tract Description*</u>	<u>No. Acres</u>	<u>Lessee of Record</u>	<u>State Lease No. and Date</u>	<u>Royalty Interest Ownership & Percentage</u>	<u>Working Interest Ownership and Percentage</u>	<u>Percentage Tract Participation</u>
1	Sec. 8, S/2 SW/4	80.00	Shell Oil Company	E1079 November 12, 1946	State of New Mexico 12.50000 Shell Canadian Oil Ex- ploration Co. 6.25000	Roy G. Barton, 25.00000 Jon Hy Bear Trust 18.75000 C. J. Bohner, 37.50000 David A. Kimbell Trust 18.75000	7.741044
2	Sec. 8, SW/4 NE/4	40.00	Wm. Yeager and Jim Armstrong	E1386 July 10, 1947	State of New Mexico 12.50000	Mahee Royalties, 75.00000 J. M. Armstrong, 12.50000 W. A. Yeager, 12.50000	4.271479
3	Sec. 7, SE/4 and NE/4	320.00	The Pure Oil Company	OG 265 October 16, 1956	State of New Mexico 12.50000	The Pure Oil Company 100.00000	19.586157
4	Sec. 8, SE/4 NE/4	40.00	Shell Oil Company	E8265 June 15, 1954	State of New Mexico 12.50000	Shell Oil Company 100.00000	9.346487
5	Sec. 8, N/2 SW/4 and N/2 NW/4	160.00	Shell Oil Company	E1079 November 12, 1946	State of New Mexico 12.50000	Shell Oil Company 100.00000	15.326796
6	Sec. 9, W/2 W/2	160.00	Shell Oil Company	OG512 January 15, 1957	State of New Mexico 12.50000	Shell Oil Company 100.00000	1.293103

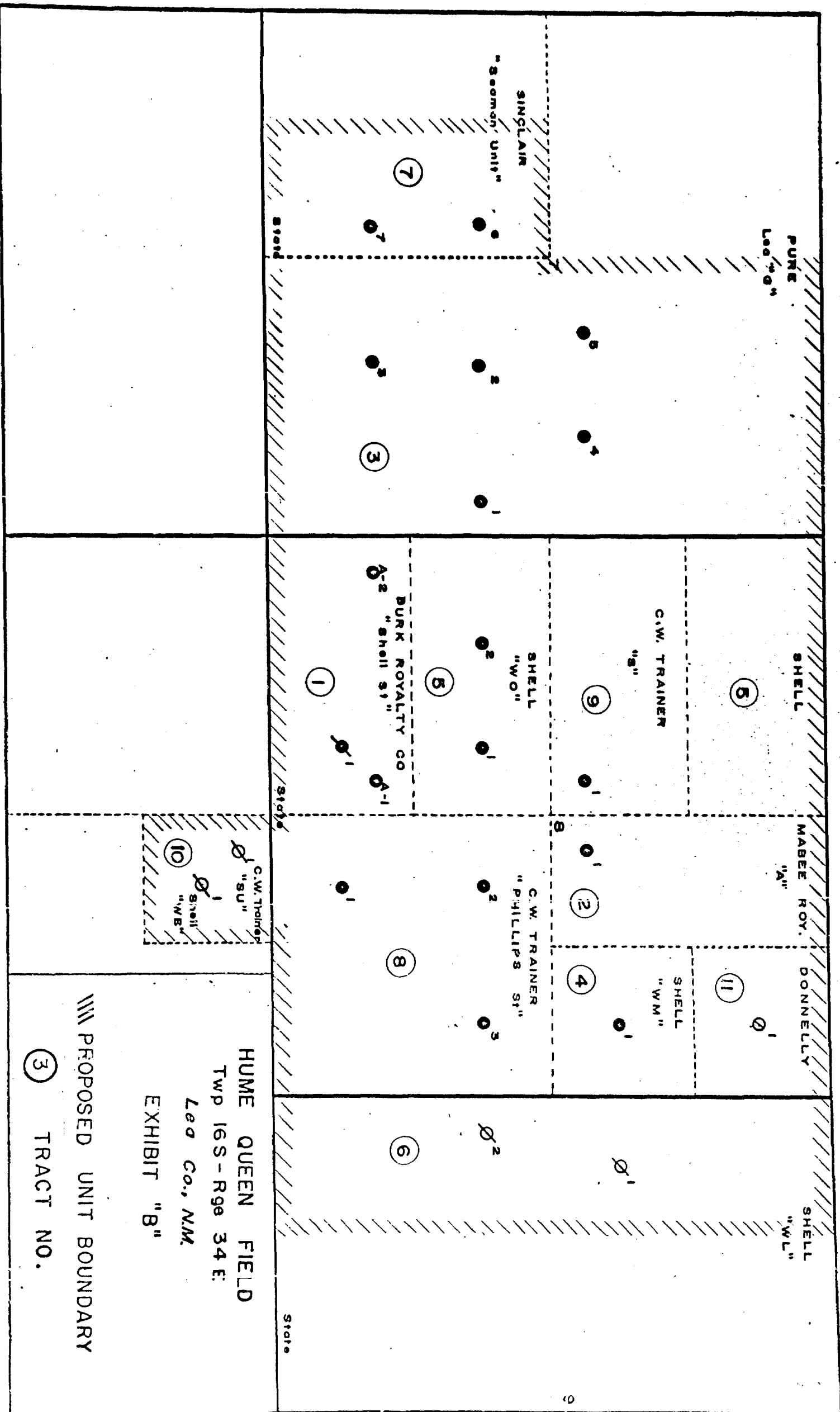
EXHIBIT A
TO
UNIT AGREEMENT
HUME QUEEN UNIT
LEA COUNTY, NEW MEXICO
TRACT DESCRIPTION, TRACT OWNERSHIP
AND TRACT PARTICIPATION PERCENTAGE

Tract No.	Tract Description*	No. Acres	Lessee of Record	State Lease No. and Date	Royalty Interest Ownership & Percentage	Working Interest Ownership and Percentage	Percentage Tract Participation
7**	Sec. 7, E/2 SW/4	80.00	Cities Service Oil Company	E990 September 10, 1946	State of New Mexico 12.50000	Sinclair Oil & Gas Company 35.39378 Cities Service Oil Company 14.21011 Shell Oil Company 37.79705 Skelly Oil Company 12.59906	4.367942
8	Sec. 8, SE/4	160.00	Phillips Petroleum Company	E1186 February 10, 1947	State of New Mexico 12.5000	C. W. Trainer, 35.00000 Roy G. Barton, 50.00000 Carl J. Cahill, 7.50000 George Neill, 7.50000	33.945052
9	Sec. 8, S/2 NW/4	80.00	Shell Oil Company	E1079 November 12, 1946	State of New Mexico 12.50000 Shell Canadian Exploration Co. 6.25000	C. W. Trainer, 25.00000 Roy G. Barton, 50.00000 J. Don Hudgens, Inc. 25.00000***	2.397802
10	Sec. 17, NW/4 NE/4	40.00	Southern Union Gas Company	OC1215 August 20, 1957	State of New Mexico 12.50000 Southern Union Gas Co. 12.50000	C. W. Trainer, 8.33333 Carl J. Cahill, 8.33333*** C. R. McVay and Carmen J. Stafford 75.00000**** George H. Neill, 8.33333****	0.862069

EXHIBIT A
TO
UNIT AGREEMENT
HINE QUEEN UNIT
LEA COUNTY, NEW MEXICO
TRACT DESCRIPTION, TRACT OWNERSHIP
AND TRACT PARTICIPATION PERCENTAGE

<u>Tract No.</u>	<u>Tract Description*</u>	<u>No. Acres</u>	<u>Lessee of Record</u>	<u>State Lease No. and Date</u>	<u>Royalty Interest Ownership & Percentage</u>	<u>Working Interest Ownership and Percentage</u>	<u>Percentage Tract Participation</u>
11	Sec. 8, NE/4 NE/4	40.00	Shell Oil Company	E8265 June 15, 1954	State of New Mexico 12.50000 Shell Oil Company 12.50000	Donnelly Drilling Co. 25.00000 L. B. Hodges, 25.00000 J. E. Simmons, 25.00000 W. A. Hudson, 25.00000	0.862069
TOTAL							100.000000

* All Tracts Located in T16S, R34E.
 ** Tract 7 is a portion of the Seaman Unit and all Tract Participation will be credited to the Seaman Unit.
 *** Subject to an Oil Payment out of four fifths (4/5) of Interest to The First National Bank of Hobbs, New Mexico
 **** Subject to a one-third (1/3) Net Profit Interest.



CERTIFICATE OF APPROVAL
BY COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO
OF UNIT AGREEMENT FOR DEVELOPMENT AND OPERATIONS OF THE
HUME QUEEN UNIT, COUNTY OF
LEA, NEW MEXICO

There has been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, an agreement for the development and operation of the Hume Queen Unit Area, Lea County, New Mexico, Dated _____, in which C. W. Trainer is designated as Unit Operator, and which has been executed by various parties owning and holding oil and gas leases embracing lands within the Unit Area and upon examination of said agreement, the Commissioner finds:

- (a) That such agreement will tend to promote conservation of oil and gas and the better utilization of reservoir energy in said field;
- (b) That under the operations proposed, the state will receive its fair share of the recoverable oil or gas in place under its land in the area affected;
- (c) That the agreement is in other respects for the best interests of the state;
- (d) That the agreement provides for the unit operation of the field, for allocation of production and sharing of proceeds from the area covered by the agreement in accordance with a formula for participation as specified in the agreement regardless of the particular tract from which production is obtained or proceeds are derived and for repressuring or secondary recovery operations.

NOW THEREFORE, by virtue of the authority conferred upon me by virtue of the Laws of the State of New Mexico, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the state, do hereby consent to and approve the above referred to Hume Queen Unit Agreement as to the lands of the State of New Mexico committed thereto, and all oil and gas leases embracing lands of the State of New Mexico committed to said agreement shall be and the same are hereby amended so that the provisions thereof will conform to the provisions of said Unit Agreement and so that the length of the secondary term of each such lease as to the lands within the Unit Area will be extended as provided therein, such extension shall also be effective to extend the term of each oil and gas lease embracing lands of the State of New Mexico committed to said Unit Agreement which would otherwise expire, so as to coincide with the extended term of such Unit Agreement.

IN WITNESS WHEREOF, this Certificate of Approval is executed as of
this _____ day of _____.

Commissioner of Public Lands
of the State of New Mexico

State of New Mexico



Commissioner of Public Lands

E. S. JOHNNY WALKER
COMMISSIONER



P. O. BOX 791
SANTA FE, NEW MEXICO

March 8, 1963

C. W. Trainer
P. O. Box 2222
Hobbs, New Mexico

Re: Hume Queen Waterflood
Unit. Lea County,
New Mexico

Dear Mr. Trainer:

This is to confirm our telephone conversation of this date by which we verbally approved the changes in the Unit Agreement Form, as submitted in your letter dated March 6, 1963.

We approve your Hume Queen Waterflood as to the project and also approve the Unit Agreement as to form and content.

Very truly yours,

E. S. Johnny Walker
COMMISSIONER OF PUBLIC LANDS

BY: *Marian M. Rhea*

(Mrs.) Marian M. Rhea
Supervisor, Unit Division

ESW/mmr/e



Case 2774

MAIL OFFICE 000

1963 MAR 15 PM 1:35 STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

March 14, 1963

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 C. W. Trainer for approval of the Hume Queen Waterflood project located in Township 16 South, Range 34 East. Reference is also made to a letter from Mr. C. W. Trainer under date of March 8, 1963 which refers to this waterflood case as No. 2774. The letter is addressed to me and a copy has been sent to your office. The method of casing, cementing, tubing, injection, etc., are set forth in the letter and this office offers no objection to the granting of the application, provided the casing, tubing, packer and injection method are in accordance with the letter.

Very truly yours,

S. E. Reynolds
State Engineer

FEI/ma
cc-C. W. Trainer
F. H. Hennighausen

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

MAIN OFFICE OCC

C. W. TRAINER

P. O. BOX 2222

PHONE EX 7-1518

1963 MAR 11 AM 8:13

205 NORTH LINAM STREET

HOBBS, NEW MEXICO

March 8, 1963

Case 2774

Mr. Frank Irby
State Engineers Office
Santa Fe, New Mexico

Re: Hume Queen Waterflood
Twp. 16S, Rge 34E
NWCCC Case No. 2774

Dear Mr. Irby:

Attached is information which you requested on the above subject in conversation with Messrs. Morris and Gilbreth on Wednesday, February 27, 1963. This information has been taken from Oil Conservation Commission forms filed by the operators.

The surface casing has been set below the water sand and into the red beds in all of these wells. The casing size, depth, and amount of cement are shown. The production string has been set through the Queen pay in all wells and the perforations are opposite the Queen pay in all wells except C. W. Trainer's State "SU" #1. In this well the interval from 2844' to 2892' has been tested. A temperature survey indicated top of cement at 2815'. Injection will be in the interval 3961' to 3966' which is in the Queen. The upper perforations will be squeezed before initiation of injection. The tubing will be lined with either plastic or cement, and set on a packer a few feet above the perforations. The casing will be loaded with inhibited fluid, either water or oil.

In the SW/4 of NW/4 of Section 9, Shell's State WL #1 will be re-completed as an injection well. Plugs will be drilled out and casing run, cemented and perforated similar to the other wells listed. Also, the two new wells, to be drilled in the SW/4 NW/4 and SE/4 SE/4 of Section 8, will be completed similar to the other wells now completed in this pool.

Page -2-
C. W. Trainer
March 8, 1963
Hume Queen Waterflood
NMOCC Case No. 2774

The Oil Conservation Commission has set this case for hearing on March 20, 1963, under Case No. 2774. We would appreciate your reviewing this information and if you have no objections, advising by letter.

Yours very truly,

CW Trainer
C. W. Trainer

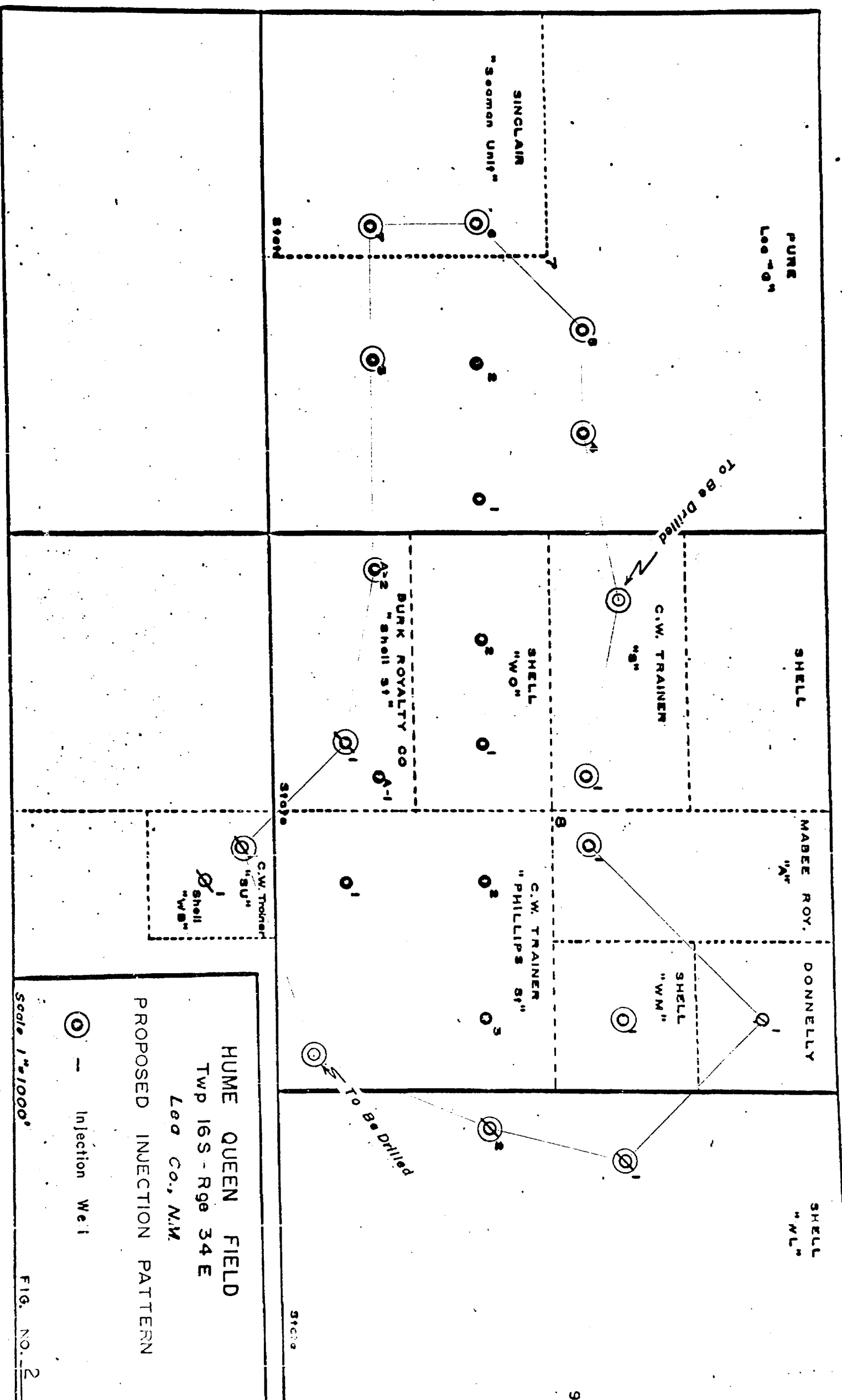
CWT:vp
Encls.

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

Mr. Richard Morris
301 Don Gaspar Avenue
Santa Fe, New Mexico

Operator	Lease	Well No	Location	Surface Gey	Cmt Used	Prof Interval Production String	Calculation Top.
The Pure Oil Co.	Lee State "G"	3	Unit O, 7-16-34	8 5/8 @ 351'	300 Sax	3953-3958 5 1/2 @ 3999'	200.0x 2830
" "	" "	4	Unit A-7-16-34	8 5/8 @ 352'	350 Sax	3925-3941 5 1/2 @ 3974'	200.5x 2805
" "	" "	5	Unit G 7-16-34	8 5/8 @ 352	350 Sax	3919-3939 5 1/2 @ 3969	200.5x 2830
Sinclair Oil Gas	Seaman Unit "	6	Unit K, 7-16-34	7 5/8 @ 329	150 Sax	3931-3948 4 1/2 @ 3970'	250.5x 2200
Dowdell Drilling Co.	Shell State	7	Unit N, 7-16-34	7 5/8 @ 350'	250 Sax	3952-3958 4 1/2 @ 3995	250.5x 2175
" "	" "	1	Unit A, 8-16-34	8 5/8 @ 311	100 Sax	3938-3960 4 1/2 @ 3979	250.5x 2150
CW Trainer	State "S"	1	Unit F, 8-16-34	8 5/8 350'	250 Sax	3933-3947 5 1/2 @ 3980'	150.5x 3126
Mohr-Kearl's	State "A"	1	Unit G, 8-16-34	13 3/8 294'	325 Sax	3957-3977 4 1/2 @ 3984	100.5x 3554
Burke Property Co	Shell State A	1	Unit M, 8-16-34	9 3/8 247'	200 Sax	3956-3966 5 1/2 @ 4027	75.5x + 1240 Surf Discl
Shell Oil Co.	State CWL	1	Unit L, 8-16-34	8 5/8 248	235 Sax	Testing pulled plugs at 3850-4100, 2450-3700, 1150-1500	
Shell Oil Co	State W/L	2	Unit L, 9-16-34	8 5/8 268	200 Sax	200-350' and at Surface,	
CW Trainer	State "Su"	1	Unit D, 17-16-34	8 5/8 @ 267'	225 Sax	3944 5 1/2 @ 4036	200.5x 2763
						3961-3966 4 1/2 @ 4010	150.5x 2353

Operator	Lease	Well No	Location	Surface Gey	Cmt Used	Prof Interval Production String	Calculation Top.
The Pure Oil Co.	Lee State "G"	3	Unit O, 7-16-34	8 5/8 @ 351'	300 Sax	3953-3958 5 1/2 @ 3999'	200.0x 2830
" "	" "	4	Unit A-7-16-34	8 5/8 @ 352'	350 Sax	3925-3941 5 1/2 @ 3974'	200.5x 2805
" "	" "	5	Unit G 7-16-34	8 5/8 @ 352	350 Sax	3919-3939 5 1/2 @ 3969	200.5x 2830
Sinclair Oil Gas	Seaman Unit "	6	Unit K, 7-16-34	7 5/8 @ 329	150 Sax	3931-3948 4 1/2 @ 3970'	250.5x 2200
Dowdell Drilling Co.	Shell State	7	Unit N, 7-16-34	7 5/8 @ 350'	250 Sax	3952-3958 4 1/2 @ 3995	250.5x 2175
" "	" "	1	Unit A, 8-16-34	8 5/8 @ 311	100 Sax	3938-3960 4 1/2 @ 3979	250.5x 2150
CW Trainer	State "S"	1	Unit F, 8-16-34	8 5/8 350'	250 Sax	3933-3947 5 1/2 @ 3980'	150.5x 3126
Mohr-Kearl's	State "A"	1	Unit G, 8-16-34	13 3/8 294'	325 Sax	3957-3977 4 1/2 @ 3984	100.5x 3554
Burke Property Co	Shell State A	2	Unit M, 8-16-34	9 3/8 247'	200 Sax	3956-3966 5 1/2 @ 4027	75.5x + 1240 Surf Discl
Shell Oil Co.	State CWL	1	Unit L, 8-16-34	8 5/8 248	235 Sax	Testing pulled plugs at 3850-4100, 2450-3700, 1150-1500	
Shell Oil Co	State W/L	2	Unit L, 9-16-34	8 5/8 268	200 Sax	200-350' and at Surface,	
CW Trainer	State "Su"	1	Unit D, 17-16-34	8 5/8 @ 267'	225 Sax	3944 5 1/2 @ 4036	200.5x 2763
						3961-3966 4 1/2 @ 4010	150.5x 2353



HUME QUEEN FIELD
Twp 16S - Rge 34 E
Leo Co., N.M.
PROPOSED INJECTION PATTERN

② — Injection Well

Scale 1"=1000'

FIG. NO. 2

No. 10-63

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 20, 1963

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:

- CASE 2773: Application of C. W. Trainer for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Hume-Queen Unit Area comprising 1,240 acres of State land in Township 16 South, Range 34 East, Lea County, New Mexico.
- CASE 2774: Application of C. W. Trainer for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, Hume-Queen Pool, Lea County, New Mexico, through 15 wells located in Sections 7, 8, 9, and 17, Township 16 South, Range 34 East.
- CASE 2775: Application of Cima Capitan, Inc. et al, for a waterflood project, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation, Red Lake Pool, Eddy County, New Mexico, through 13 wells located in Sections 22 and 27, Township 17 South, Range 28 East.
- CASE 2776: Application of International Oil & Gas Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, High Lonesome Pool, Eddy County, New Mexico, through one injection well located in Section 15, Township 16 South, Range 29 East.
- CASE 2777: Application of Consolidated Oil & Gas, Inc., for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Apache Well No. 2-16 at an unorthodox location 790 feet from the North line and 1850 feet from the West line of Section 16, Township 26 North, Range 3 West, Blanco Mesaverde Pool, Rio Arriba County, New Mexico.
- CASE 2778: Application of Tenneco Oil Company for a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled

-2-

Docket No. 10-63

cause, seeks approval of the Central Totah Gallup Unit Area comprising 2,738 acres of Federal and Fee lands in Townships 28 and 29 North, Range 13 West, San Juan County, New Mexico.

CASE 2737: (Continued from January 23, 1963 Examiner Hearing)

Application of Gulf Oil Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, including provisions for 640-acre spacing therein. This case was continued to the March 20, 1963 examiner hearing by Order No. R-2429.

CASE 2761: (Continued)

Application of Compass Exploration, Inc., for the creation of a Gallup Gas Pool, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order deleting certain acreage from the South Blanco-Tocito Pool and re-designating portions of said acreage to comprise a new Gallup gas pool for its Northwest Lindrith Well No. 1-3, located in Unit K of Section 3, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

CASE 2746: (Continued)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Continental National Insurance Group and all other interested parties to appear and show cause why the Kenneth V. Barbee Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 9, Township 11 South, Range 25 East, NMPM, Chaves County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

iqg/

No. 10-63

SUPPLEMENTAL DOCKET - EXAMINER HEARING - WEDNESDAY, MARCH 20, 1963

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

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

CASE 2779: Application of Marathon Oil Company for a unit agreement,
Eddy County, New Mexico. Applicant, in the above-styled
cause, seeks approval of the North Indian Basin Unit Area,
comprising 5786 acres, more or less, of State and Federal
Lands in Townships 20 $\frac{1}{2}$ and 21 South, Range 23 East, Eddy
County, New Mexico.

MAIN OFFICE OCC

1933 FEB 23 AM 11:07

BEFORE THE NEW MEXICO
OIL CONSERVATION COMMISSION

APPLICATION OF C. W. TRAINER for :
approval of a waterflood project :
in the Hume-Queen Pool, Lea :
County, New Mexico :

CASE NO. 2774

APPLICATION

Comes now C. W. TRAINER by his attorneys, Seth, Montgomery, Federici & Andrews, and applied to the New Mexico Oil Conservation Commission for approval of a proposed waterflood project in the Hume-Queen Pool, and in support of his application states:

1. That C. W. Trainer has made a separate application to the Commission for approval of a unit agreement covering 1240 acres in the Hume-Queen Pool, Lea County, New Mexico; the proposed unit will include all wells completed in said pool.

2. That it is proposed to institute a waterflood project in the Hume-Queen Unit Area by the injection of water into the Penrose Section of the Queen formation through fifteen wells, located in Township 16 South, Range 34 East, as follows:

Pure Lea State "G" Well No. 5 Unit G,
Section 7

Pure Lea State "G" Well No. 4 Unit H,
Section 7

Seaman Unit Well No. 6 Unit K, Sec-
tion 7

Seaman Unit Well No. 7 Unit N, Sec-
tion 7

Pure Lea State "G" Well No. 3 Unit O,
Section 7

Donnelly Shell State Well No. 1 Unit A,
Section 8

DOCKET MAILED

3/8/63
JW

Well to be drilled in Unit E, Section 8

C. W. Trainer State "S" Well No. 1 Unit
F, Section 8

Mabee Royalties State "A" Well No. 1
Unit G, Section 8

Burk Royalty Shell State Well No. A-2
Unit M., Section 8

Burk Royalty Shell State Well No. 1
Unit N, Section 8

Well to be drilled in Unit P, Section 8

Shell State "WL" Well No. 2 Unit L,
Section 9

Shell State "WL" Well No. 1 Unit E,
Section 9

C. W. Trainer State "SU" Well No. 1
Unit B, Section 17

3. That the wells in the proposed waterflood project have reached an advanced state of depletion and may properly be classified as "stripper" wells.

4. That the operation of the proposed waterflood project will result in increased ultimate recovery of oil from the Hume-Queen Pool and thereby will prevent waste; that operation of the waterflood within the confines of the unit will protect correlative rights.

5. That the allowable to be assigned to the proposed waterflood project should be governed by the provisions of Rule 701 of the Commission's Rules and Regulations.

WHEREFORE, it is requested that this application be set for hearing before the Commission or one of its examiners, and that following said hearing the Commission enter its order approving this application.

SETH, MONTGOMERY, FEDERICI & ANDREWS

By

Richard S. Morris
Attorneys for C. W. TRAINER.

Case. 2774
Hear. 3-20-63
Rec. 3-21-63

1. Grant C.W. Duvine's request for a water flood project for the Hummer field. Project area to be the Hummer unit area.
2. Approve the 13 injection wells as stated on the application.
3. Injection wells shall be equipped with ^{internally} cement or Plaster coated tubing and a packer shall be installed just above to perforations.
3. Std. unit order otherwise.

W. H. D. G.

Suggest a finding to prevent setting precedent since we have 2. Top allowable wells and 3 that are nearly top.

Approval of unit should be made even tho there are several wells which are or are near top allowable because the flood is a peripheral type + encompasses the entire pool.

C. W. TRAINER

P. O. BOX 2222

PHONE EX 7-1518

205 NORTH LINAM STREET

HOBBS, NEW MEXICO

March 22, 1963

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

Re: Hume Queen Waterflood
NMOCC Case No. 2774
March 20, 1963

Dear Mr. Utz:

At the subject hearing, you requested that we submit information to substantiate the statement that production decline on the Trainer Phillips Lease is imminent. Attached you will find three well curves showing the individual well performance of this property. The curves are plotted on a quarterly basis to smooth out the month to month variations in production in order to obtain a better trend. You will note from the curves that well Nos. 1 and 2 have been producing below their allowable rates for several months with the decline in productivity being greater than the decline in allowable. The characteristic maximum decline rate has not been reached yet, although the curves show that the present decline is in excess of 20% per year. Well No. 1 has not been capable of making top allowable since June 1961. The last test that we have was taken on June 6, 1962, at which time the well made 30 barrels of oil plus 20 barrels of water.

The capacity tests for Well No. 2 are shown by crosses on the graph for this well. The last test was taken in October, 1962, at which time the well showed a capacity of 40 barrels of oil per day. We have been unable to make top allowable for any month since October, 1962, however, and feel this is partially due to productivity decline. The dotted line could be an extrapolation of this capacity decline.

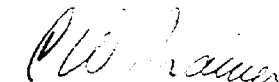
As for Well No. 3, it still has a capability to produce slightly in excess of top allowable limit. Although the well generally will make top allowable for one month, on a prolonged basis, we have been unable to make top allowable for either quarter since June, 1962. Capacity tests on this well are shown by the dotted line on the graph. The last

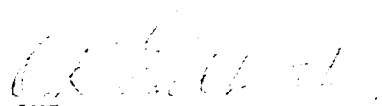
Page -2-
C. W. Trainer
March 22, 1963
Hume Queen Waterflood
NMOCC Case No. 2774
March 20, 1963

available test was made on January 20, 1963, at which time the well made 57.87 barrels of oil. This was 23.53 barrels per day below the prior test on the well. The capacity is declining at approximately 3 barrels per day per month. The dotted extrapolation indicates the capacity will start falling below top allowable rates late in the second quarter of 1963.

As you can see from the curves, these three wells have not reached the advanced stage of depletion that most of the other wells in the field have. However, with so many of the wells operating at the economic limit, we believe the overall stage of depletion justifies the waterflood classification. Further, a waterflood program at this time would result in substantial gains to be realized by both the operators and the State of New Mexico as sole Royalty Owner.

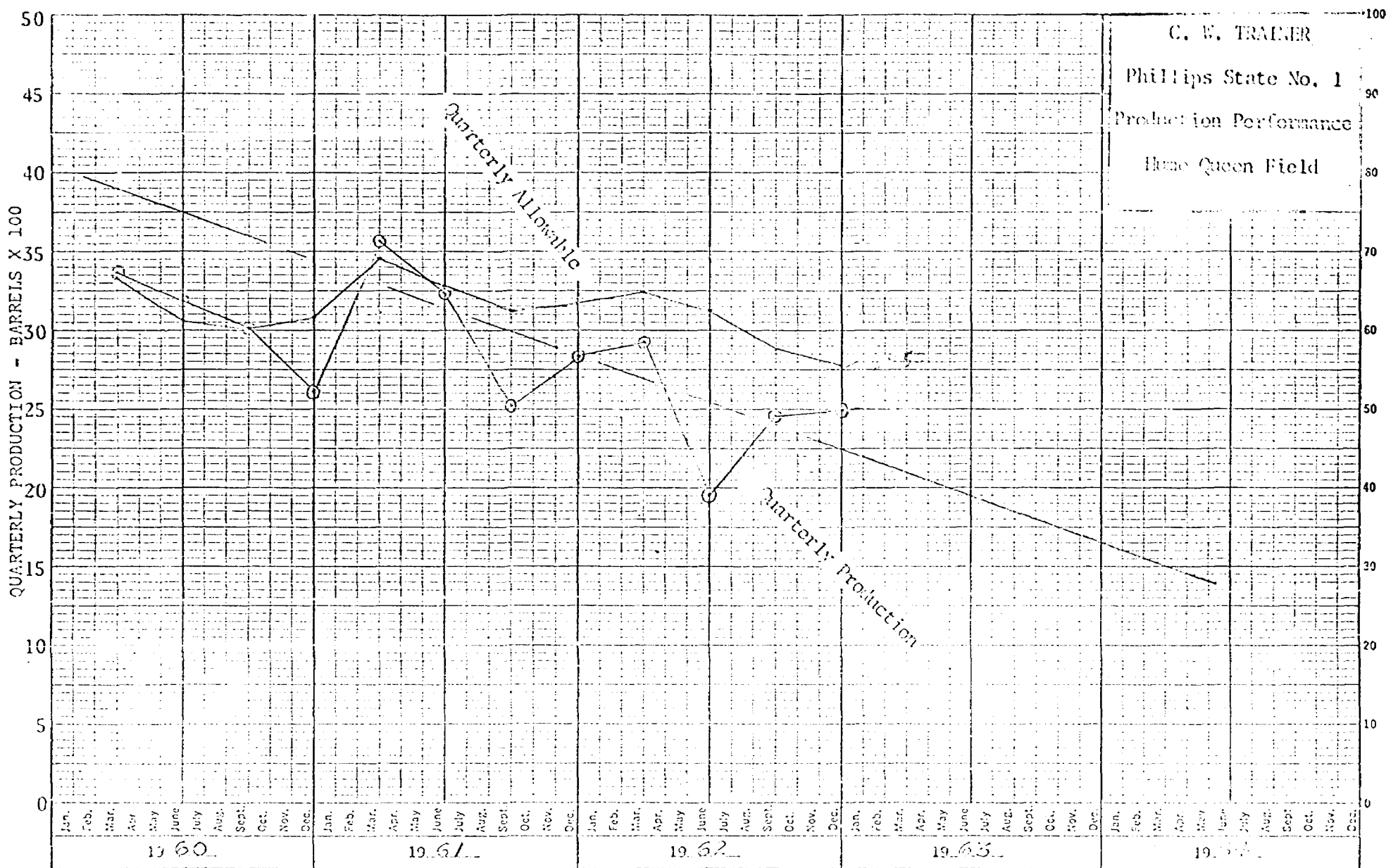
Yours very truly,


C. W. Trainer

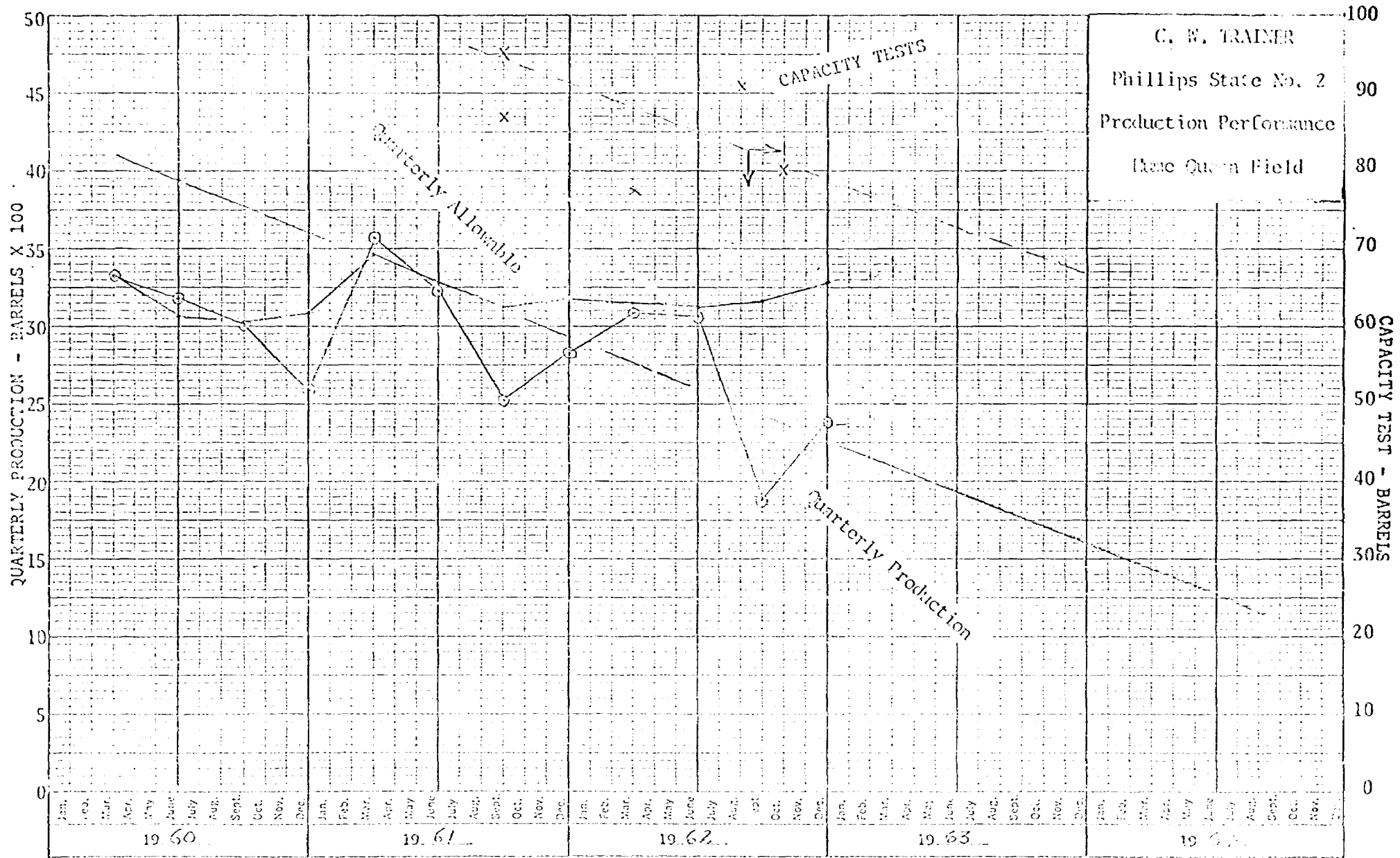

OKG:vp
Encls.

cc: Mr. Richard Morris
301 Don Gaspar Avenue
Santa Fe, New Mexico

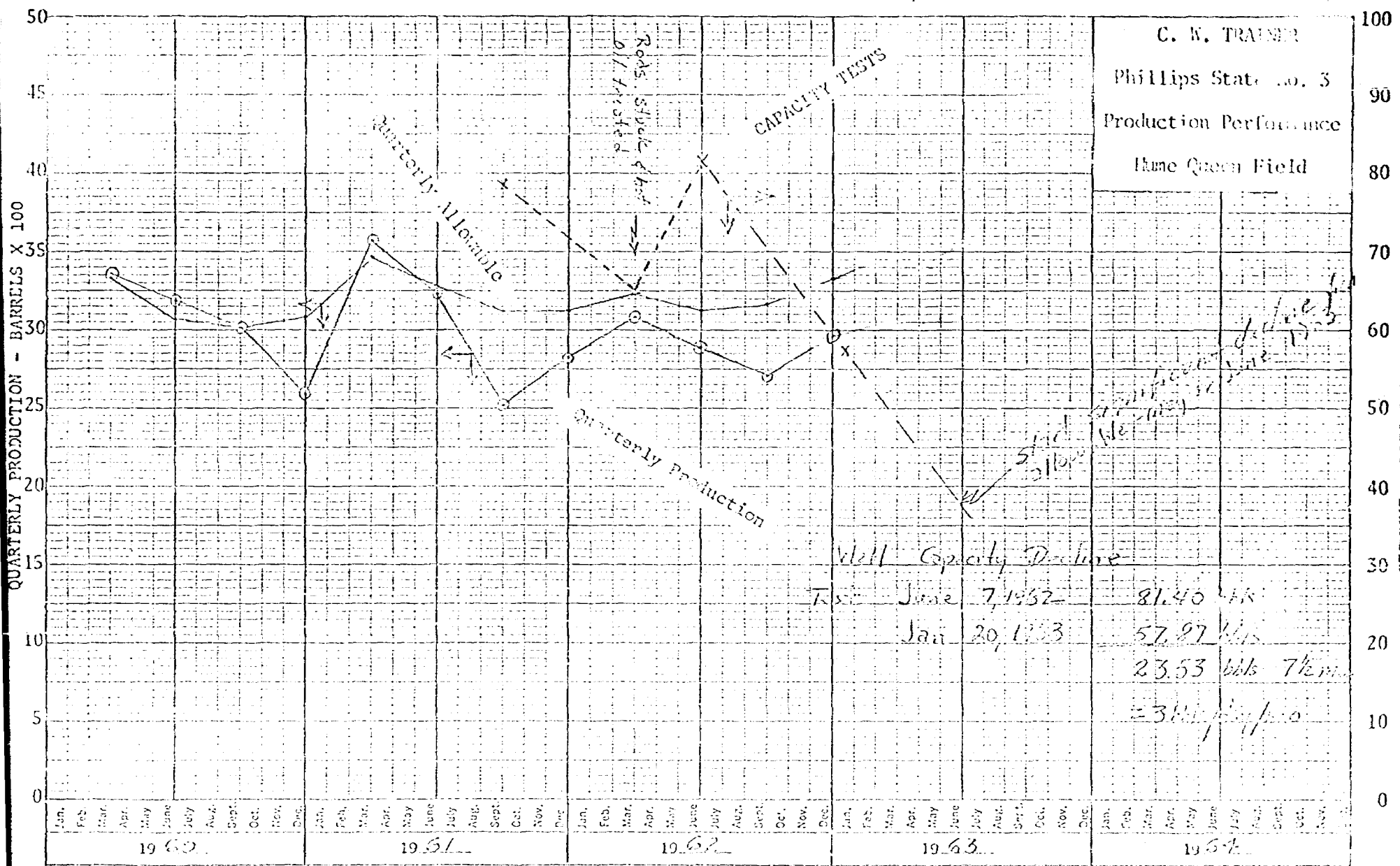
359-192 KEUFFEL & ESSER CO.
Five Years by Months on Long Scale X 100 Divisions.
MADE IN U.S.A.



359-102 KEUFFEL & ESSER CO.
Five Years by Months on Long Side X 100 Divisions.
MADE IN U.S.A.



359-192 KIEFFEL & ESSER CO.
 Five Years by Months on Four Side X 100 Divisions.
 MADE IN U.S.A.



**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. 2774
Order No. R-2455**

**APPLICATION OF C. W. TRAINER
FOR A WATERFLOOD PROJECT, HUME-
QUEEN POOL, LEA COUNTY, NEW
MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 20, 1963, 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 27th day of March, 1963, 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 Hume-Queen Unit Agreement has been approved by the Commission by Order No. R-2454; that the Hume-Queen Unit Area comprises 1,240 acres, more or less, of State land in Township 16 South, Range 34 East, NMPM, Lea County, New Mexico, as more fully described in said order.

(3) That the applicant, C. W. Trainer, seeks permission to institute a waterflood project in the Hume-Queen Pool in the Hume-Queen Unit Area by the injection of water into the Penrose section of the Queen formation through 15 wells located within said unit area.

(4) That although some of the wells in the proposed project area are not in an advanced stage of depletion and cannot be regarded as "stripper" wells, the project should

-2-

CASE No. 2774
Order No. R-2455

be classified as a waterflood project as the majority of the wells are stripper wells and the proposed flood will be of the peripheral type encompassing the entire pool.

(5) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil.

(6) That the subject application should be approved and should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, C. W. Trainer, is hereby authorized to institute a peripheral waterflood project in the Hume-Queen Pool in the Hume-Queen Unit Area by the injection of water into the Penrose section of the Queen formation through the following-described 15 wells in Township 16 South, Range 34 East, NNPM, Lea County, New Mexico:

Pure Lea State "G" Well No. 5, Unit G, Section 7;
Pure Lea State "G" Well No. 4, Unit H, Section 7;
Seaman Unit Well No. 6, Unit K, Section 7;
Seaman Unit Well No. 7, Unit N, Section 7;
Pure Lea State "G" Well No. 3, Unit O, Section 7;
Donnelly Shell State Well No. 1, Unit A, Section 8;
Well to be drilled in Unit E, Section 8;
C. W. Trainer State "S" Well No. 1, Unit F, Section 8;
Mabee Royalties State "A" Well No. 1, Unit G, Section 8;
Burk Royalty Shell State Well No. 2-A, Unit M, Section 8;
Burk Royalty Shell State Well No. 1, Unit N, Section 8;
Well to be drilled in Unit P, Section 8;
Shell State "WL" Well No. 2, Unit L, Section 9;
Shell State "WL" Well No. 1, Unit E, Section 9;
C. W. Trainer State "SU" Well No. 1, Unit B, Section 17.

(2) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

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

-3-
CASE No. 2774
Order No. R-2455

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell

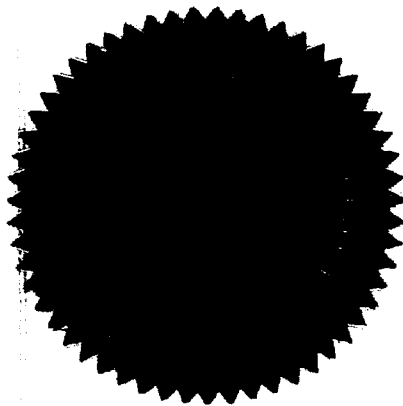
JACK M. CAMPBELL, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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



esr/

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

April 1, 1963

C
O
P
Y

**Mr. Richard S. Morris
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Post Office Box 828
Santa Fe, New Mexico**

Dear Sir:

Enclosed herewith is Commission Order No. R-2455, entered in Case No. 2774, approving the Hume-Queen Unit Waterflood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 980 barrels per day.

Please report any error in this calculated maximum allowable immediately both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

-2-

**Mr. Richard S. Morris
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Post Office Box 828
Santa Fe, New Mexico**

April 1, 1963

C
O
P
Y

received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

**A. L. PORTER, Jr.
Secretary-Director**

ALP/lr

Enclosure (1)

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

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

P. O. BOX 871
SANTA FE

Mr. Richard Morris
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Box 828
Santa Fe, New Mexico

_____, 19____

Gentlemen:

Enclosed herewith is Commission Order No. R- 2455, entered in Case No. 2774, approving the Hume-Queen Water Flood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate District proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

April 26, 1963

C
O
P
Y

Richard S. Morris, Esq.
Seth, Montgomery, Federici & Andrews
Attorneys at Law
P. O. Box 828
Santa Fe, New Mexico

Dear Mr. Morris:

Reference is made to your letter of April 17, 1963, wherein you requested our opinion concerning Burk Royalty Company's authority to inject water into its Shell State "A" Well No. 2 located in the SW/4 SW/4 of Section 8, Township 16 South, Range 34 East, NMEM, Lea County, New Mexico, under the provisions of Order No. R-2455.

Since Order No. R-2455 authorized the injection of water into the above Shell State "A" Well No. 2 and a copy of the injection well agreement executed by Burk Royalty Company and C. W. Trainer has been filed with this office, a hearing will not be necessary to secure authority for Burk Royalty Company to inject water into the subject well. Burk Royalty Company may inject water into its Shell State "A" Well No. 2 in the same manner and to the same extent that C. W. Trainer could have injected water into the subject well under the provisions of Order No. R-2455.

Very truly yours,

A. L. FORTER, Jr.,
Secretary-Director

ALL/JMD/esr

SETH, MONTGOMERY, FEDERICI & ANDREWS, P.C.

ATTORNEYS AND COUNSELORS AT LAW

301 DON GASPAR AVENUE

SANTA FE, NEW MEXICO 87501 APR 17 PM 3 00

J. O. SETH
COUNSEL

POST OFFICE BOX 828
TELEPHONE YU 3-7315

A. K. MONTGOMERY
WM. FEDERICI
FRANK ANDREWS
FRED C. HANNAHS
GEORGE A. GRAHAM, JR.
RICHARD S. MORRIS

April 17, 1963

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

By Commission Orders Nos. R-2454 and R-2455 entered in cases numbers 2773 and 2774 on March 27, 1963, approval was given to the Hume-Queen Unit Agreement and to a water flood project to be instituted in the unit area by C. W. Trainer, who was designated as operator of the water flood project as well as operator of the unit.

At the time of the hearings, it was expected that an 80 acre tract consisting of the S/2 SW/4 of Section 8, T-16-S, R-34-E, Lea County, New Mexico, operated by Burk Royalty Company would join the unit and would participate in the water flood project. Since that time, it appears that Burk Royalty Company will not commit its acreage to the unit, but it has agreed to cooperate in the water flood project by injecting water into its well No. A-2 at rates commensurate with the Trainer well in the NW/4 NE/4 of Section 17. A copy of the agreement between Burk Royalty Company and C. W. Trainer is enclosed for your information and reference.

The question now arises as to whether the approval given to C. W. Trainer by Order No. R-2455 is sufficient to allow the injection of water into the Burk Royalty Company's well or whether it will be necessary for them to have a hearing to secure such authorization. Inasmuch as the well to be used for injection purposes by Burk is one of the wells which Trainer proposed to use as an injection well in his project, it appears that all pertinent information already has been supplied to the Commission at the previous hearing. It is hoped, therefore, that no further hearing will be required to authorize Burk's participation pursuant to the enclosed agreement. If possible, we would appreciate the Commission's interpretation of its Order No. R-2455 in this regard.

Very truly yours,

RSM:nm
cc: Mr. C. W. Trainer
Mr. Tom Darling
Encl.

Richard S. Morris

INJECTION WELL AGREEMENT

STATE OF NEW MEXICO I

COUNTY OF LEA I

WITNESS THIS AGREEMENT, made and entered into this 10th day of April, 1963, by and between C. W. TRAINER, an individual with principal office in Hobbs, New Mexico, hereinafter styled "TRAINER", and BURK ROYALTY CO., a corporation with principal office in the Oil & Gas Building, Wichita Falls, Texas, hereinafter styled "BURK", as follows:

WHEREAS, the parties to this agreement are the owners of certain oil and gas leases covering portions of Sections 8 and 17, Township 16 South, Range 34 East, Lea County, New Mexico, which leases and the lands covered thereby are more particularly described in the schedule attached hereto marked Exhibit "A", and made a part hereof by reference, and are also delineated upon the plat which is attached hereto marked Exhibit "B" and made a part hereof by reference; and

WHEREAS, the parties hereto intend to conduct secondary recovery operation on their respective leases by waterflooding in order to obtain the maximum ultimate recovery therefrom, and desire to cooperate in such operations so that the correlative rights of the parties hereto and of their respective royalty owners will be protected:

NOW, THEREFORE, in consideration of the mutual covenants, agreements, and obligations herein contained and to be paid, kept and performed, and of the advantages to be derived hereunder, it is agreed by and between the parties hereto as follows:

1. TRAINER, at his sole risk, cost, and expense, shall properly convert to a water injection well, for the purposes of injecting water into the Queen Sand formation which is located at a depth of approximately 3950 feet below the surface of the ground, his State S. U. Number 1 Well, located in the Northwest quarter of the Northeast quarter of Section 17, which well is hereinafter identified as Trainer-State S. U. No. 1.

BURK, at its sole risk, cost, and expense, shall properly convert to a water injection well, for the purpose of injecting water into the Queen Sand formation, which is located at a depth of approximately 3950 feet below the surface of the ground, its Shell State "A" Number 2, located in the Southwest quarter of the Southwest quarter of Section 8, which well is hereinafter identified as Burk-Shell State "A" No. 2.

2. For the purposes of this agreement, the TRAINER and BURK wells above mentioned will be considered as being corresponding to each other.

3. In the event any of the wells which are listed in Paragraph 1, above, is lost during conversion, the party owning such well shall replace the same with another Queen Sand injection well at approximately the same location. If any such well is lost subsequent to conversion, the party owning such well shall replace the same with another Queen Sand injection well at approximately the same location, provided such replacement can then be economically justified. In the event an injection well is lost after conversion and not replaced as above provided, then the other parties hereto shall have the right to cease to inject water into the well which is made corresponding under the provisions of Paragraph 2 hereof, or shall have the right at its or their own expense to drill and operate a new injection well at any point within 35 feet of the lost well.

4. Subject to the subsequent provisions hereof, each injection well above described shall be operated until such time as the parties hereto agree upon the abandonment thereof. In the event that any party hereto decides that the continued operation of an injection well is no longer beneficial to it, the operation of said injection well may be abandoned, provided, however, that in such event:

- (a) The other party thereupon shall have the right to cease injection of water into any well which is corresponding thereto; and
- (b) The abandoning party shall first give the other parties at least 30 days' advance written notice of its intention to abandon, and the other parties, or any one of them, shall have the option to have assigned to them such injection well and the equipment therein by notifying the abandoning party within said 30-day period and paying it the salvage value of the salvagable equipment in and on such well, less the estimated cost of plugging and abandoning, and thereafter the party, or parties, taking over and receiving assignment of such well shall be solely responsible therefor and shall properly and lawfully plug and abandon the same when the continued operation thereof is no longer desired. In the event more than one party elects to purchase the equipment as provided in this paragraph, the cost of such equipment shall be prorated between the purchasing parties by mutual agreement.

5. The party owning each injection well shall, at its sole risk, cost, and expense, inject water into the Queen Sand formation through such well at the rate of 10 barrels per day per foot of Queen Sand formation, which will be 180 barrels per day for the above mentioned corresponding wells, provided that the wells are capable of taking such volume. If one well becomes incapable of taking such volume, the volume injected into both wells will be equalized. The equalized rate will be determined by the ability of the wells to take water at plant pressure.

6. It is contemplated that the parties hereto shall commence water injection into corresponding wells at approximately the same time, and each shall make all necessary arrangements to timely prepare its wells for the injection of water therein as the flood area may be expanded. The parties hereto agree to immediately commence operations to prepare for injection into the corresponding wells as hereinabove identified under Paragraph 2.

7. No wells other than those above provided for shall be operated by any party as a Queen Sand injection well on such party's lease above identified at a location nearer than 330 feet to the common boundary line between its said lease and the lease of another party, without the prior written consent of the other party.

8. Each of the parties hereto shall be solely and separately responsible for the operation of such party's respective leases, and shall secure such governmental approvals as may be necessary for the operation of the proposed waterflood.

9. Each party hereto shall furnish the other parties each month with a statement showing, as to its above identified injection well, or wells, the water injection volumes and pressures for the preceding calendar month, and further showing the volume of oil and water produced from such party's producing wells on its aforesaid lease. Such statement shall be mailed to the respective parties as follows:

Burk Royalty Co.
800 Oil & Gas Building
Wichita Falls, Texas

Mr. C. W. Trainer
P. O. Box 2222
Hobbs, New Mexico

or to such other address as from time to time may be specified by written notice.

10. Failure to perform any of the obligations hereof occasioned by any cause, action, or occurrence beyond the reasonable control of the party charged therewith, or occasioned by any valid order, rule, or regulation of duly constituted authorities having jurisdiction in the premises, shall not be considered as a breach of this agreement, provided, however, that if any party hereto is so prevented from converting, drilling, or operating its aforesaid water injection well, or wells, the other party, or parties, shall be relieved of all obligations hereunder to convert or operate any corresponding injection well.

11. The provisions hereof shall constitute covenants running with the respective leasehold estates, and shall extend to, be binding upon, and inure to the benefit of the respective heirs, personal representatives, successors and assigns of the parties hereto, and any assignment by any party of an interest in the leasehold estates affected hereby shall be made expressly subject to the terms and provisions of this agreement.

12. This agreement may be executed in any number of counterparts, each of which shall be construed as an original.

IN WITNESS WHEREOF, this agreement has been duly executed as of the day and year first above written.

BURK ROYALTY CO.

ATTEST:

Lois Howard
Secretary

By

[Signature]
President

C. W. Trainer
C. W. Trainer

THE STATE OF TEXAS

I

COUNTY OF WICHITA

I

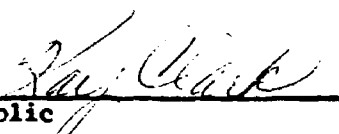
BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this 10th day of April, A. D. 1963, personally appeared D. A. KIMBELL, known to me to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its President, and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of BURK ROYALTY CO., for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

My Commission Expires:

June 1, 1963

Kay Clark
Notary Public



THE STATE OF NEW MEXICO

I

COUNTY OF LEA

I

BEFORE ME, the undersigned, a Notary Public in and for said County and State, on this ____ day of _____, A. D. 1963, personally appeared C. W. TRAINER, to me known to be the identical person who executed the within and foregoing instrument and acknowledged that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

My Commission Expires:

Notary Public

EXHIBIT "A"

ATTACHED TO AND MADE A PART OF INJECTION WELL
AGREEMENT BETWEEN BURK ROYALTY CO., ET AL,
LEA COUNTY, NEW MEXICO

SCHEDULE OF LEASE DESCRIPTIONS
ALL SITUATED IN LEA COUNTY, NEW MEXICO

BURK ROYALTY CO. LEASES

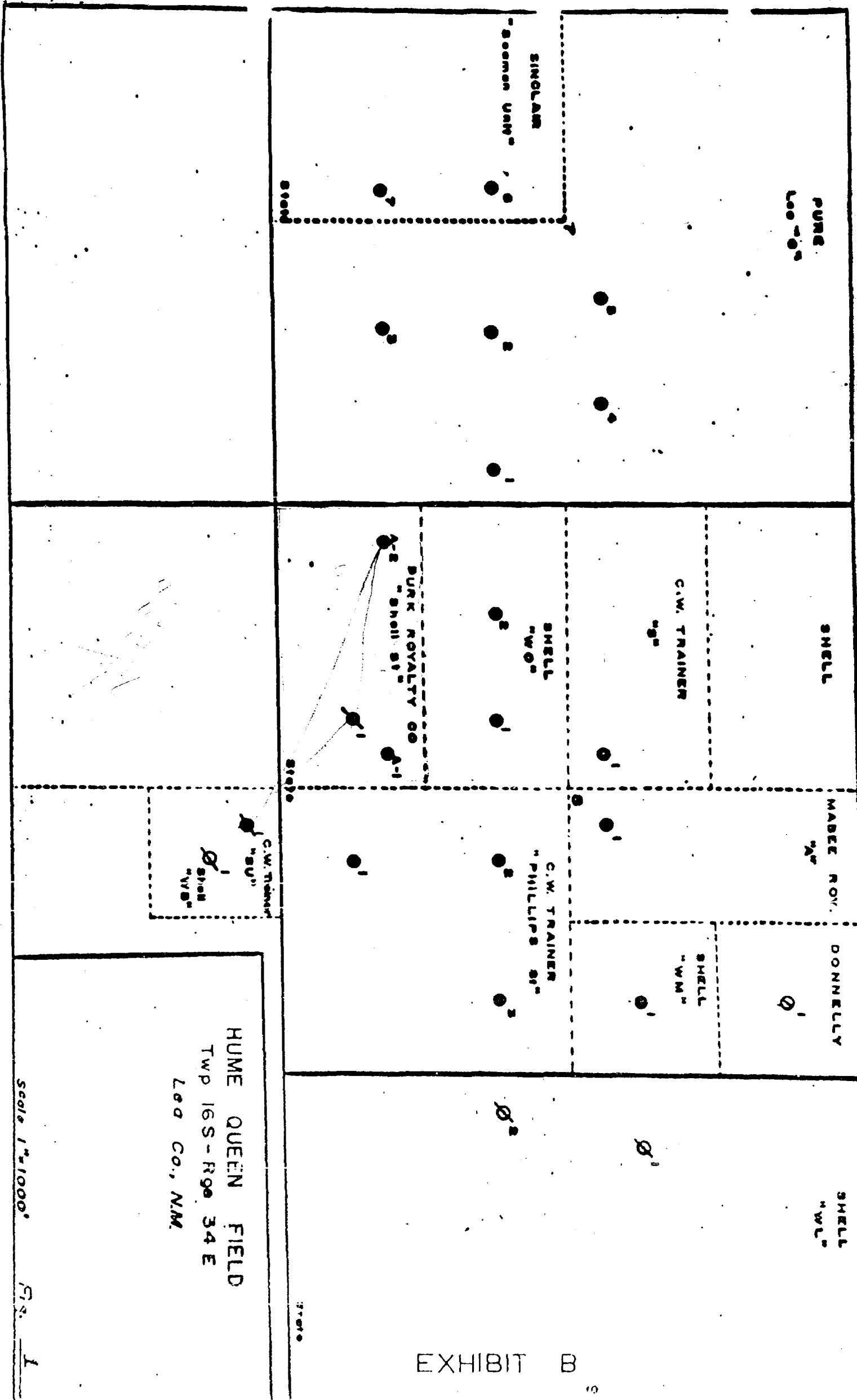
Shell State "A" Lease

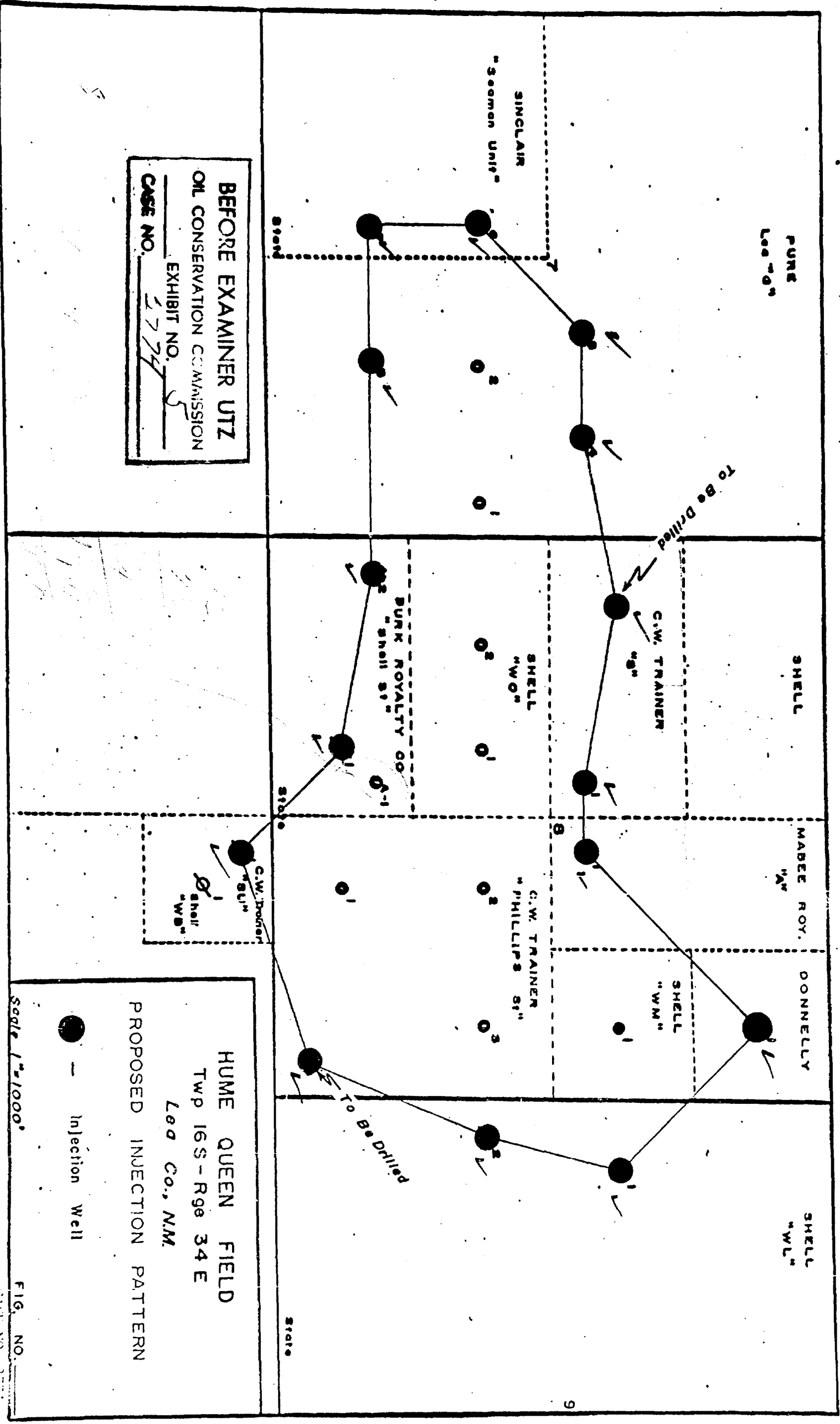
South half of the SW/4 of Section 8, Township 16
South, Range 34 East.

C. W. TRAINER LEASE

State S. U. Lease

NW/4 of the NE/4 of Section 17, Township 16 South,
Range 34 East.





PURE
Lee "Q"

1.5 2.0

13.3

2.8

9.9

5.9

0.9

0.9

SHELL

C.W. TRAINER
"G"

2.9 2.4

14.9 9.5

BURK ROYALTY CO
"A-2" "Shell 31"

5.5

11.2

28.7

MABEE ROY.
"A"

DONNELLY

Q

SHELL
"WM"

23.0

C.W. TRAINER
"PHILIP 31"

34.6 35.0

Q

SHELL
"VL"

Q

State

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 2774

January 1963

TOTAL FIELD DAILY AVERAGE PRODUCTION

= 192.45 Barrels per day

= 11.32 Barrels per Day per Well

HUME QUEEN FIELD

Twp 16S - R9g 34 E

Lee Co., N.M.

9.6 -- Daily Average Production
January, 1963

Scale 1"=1000'

Fig.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 2774

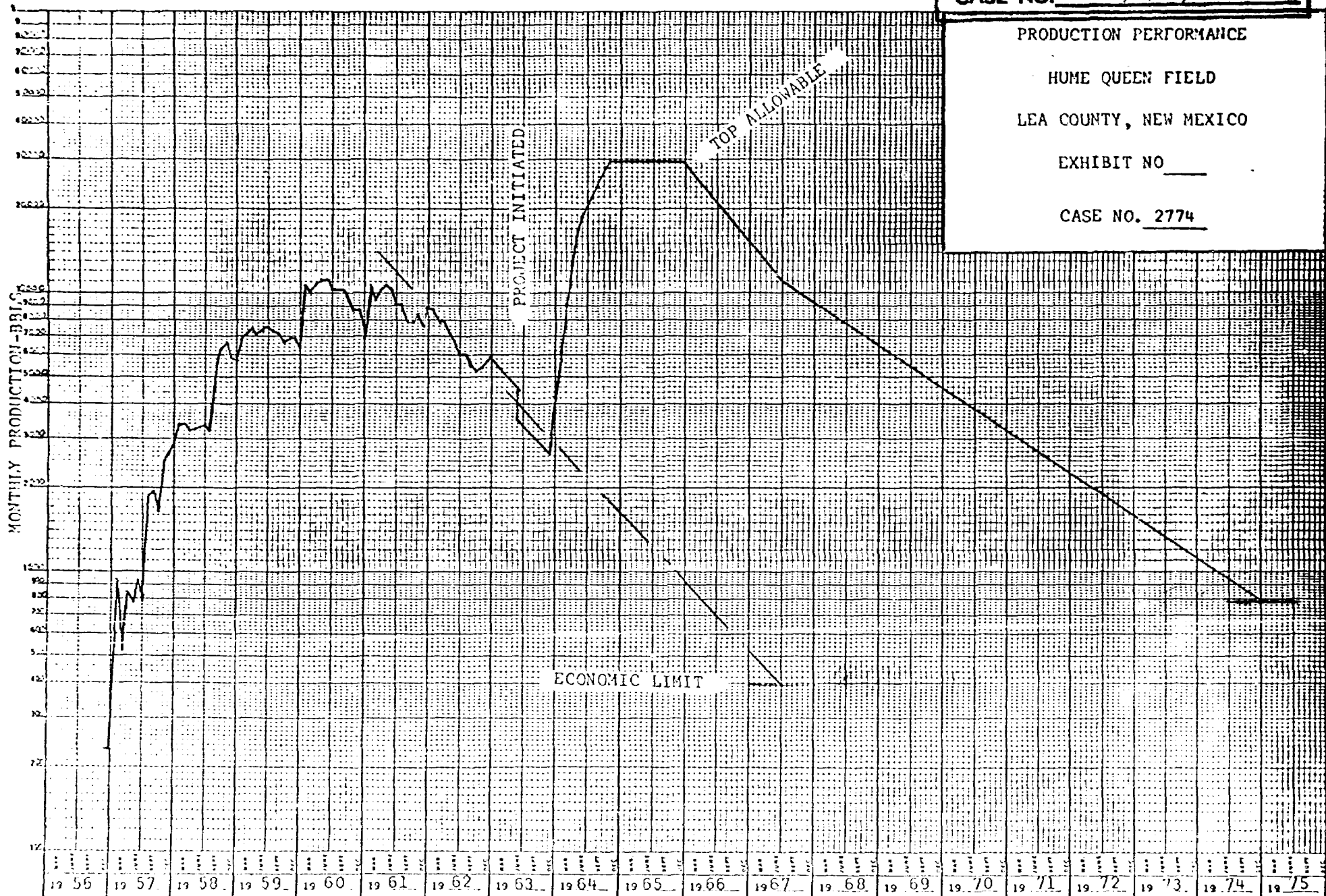
PRODUCTION PERFORMANCE

HUME QUEEN FIELD

LEA COUNTY, NEW MEXICO

EXHIBIT NO.

CASE NO. 2774



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION

EXHIBIT NO. 3
CASE NO. 2774

PRODUCTION PERFORMANCE

HUME QUEEN FIELD

LEA COUNTY, NEW MEXICO

EXHIBIT NO.

CASE NO. 2774

