UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION

OF THE LANGLIE LYNN (QUEEN) UNIT

LEA COUNTY, NEW MEXICO

4839-4840 Contimental Oil Co Oct 4, 1972

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CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. Secs. 181, et seq., and delegated to the 0il and Gas Supervisor of the Geological Survey (33 F.R. 5812), I do hereby:

- A. Approve the attached agreement for the development and operation of the LANGLIE LYNN (QUEEN) UNIT AREA, County of Lea, State of New Mexico.
- B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.
- C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

Dated	
	Oil and Gas Supervisor,
	United States Geological Survey

Contract Number____

UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION

OF THE

LANGLIE LYNN (QUEEN) UNIT AREA

COUNTY OF LEA

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STATE OF NEW MEXICO

THIS AGREEMENT, entered into as of the 1 day of July,

2	19 72, by and between the parties subscribing, ratifying or
3	consenting hereto, and herein referred to as the "parties hereto",
4	WITNESSETH:
5	WHEREAS, the parties hereto are the owners of working,
6	royalty, or other oil interests in the Unit Area subject to this
7	Agreement; and
8	WHEREAS, the term 'Working Interest" as used herein
9	shall mean the interest held in Unitized Substances or in lands
10	containing Unitized Substances by virtue of a lease, operating
11	agreement, fee title, or otherwise, which is chargeable with and
12	obligated to pay or bear all or a portion of the costs of drill-
13	ing, developing, producing, and operating the land under the unit
14	or cooperative agreement. "Royalty Interest" as used herein shall
15	mean a right to or interest in any portion of the Unitized Sub-
16	stances or proceeds thereof other than a Working interest; and
17	WHEREAS, the Mineral Leasing Act of February 25, 1920,
18	41 Stat. 437, as amended, 30 U. S. C. Secs. 181 et seq., authorized
19	Federal lessees and their representatives to unite with each
20	other, or jointly or separately with others, in collectively
21	adopting and operating a cooperative or unit plan of development
22	or operation of any oil or gas pool, field or like area, or any
23	part thereof for the purpose of more properly conserving the
24	natural resources thereof whenever determined and certified by
25	the Secretary of the Interior to be necessary or advisable in the
26	public interest; and

of New Mexico hereinafter referred to as "Commissioner", is authorized by an Act of the Legislature (Sec. 1, Chap. 88, Laws of 1943 as amended by Sec. 1 of Chap. 176, Laws of 1961, Chap. 7 Art. 11, Section 39, N.M.S. 1953 anno) to consent to or approve this Agreement on behalf of the State of New Mexico, insofar as it covers and includes lands and mineral interests of the State of New Mexico; and

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New Mexico is authorized by an Act of the Legislature (Sec. 3, Chap. 88, Laws of 1943 as amended by Sec. 1 of Chap. 176, Laws of 1961, Chap. 7 Art. 11, Section 39, N.M.S. 1953 anno) to amend with the approval of the lessee, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such unitized development and operation of State lands; and

New Mexico hereinafter referred to as "Commission" 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, Chap. 65, Art. 3, Sec. 14, N.M.S., 1953 anno) to approve this Agreement, and the conservation provisions hereof, and

WHEREAS, the parties hereto hold sufficient interests in the Langlie Lynn (Queen) Unit Area covering the land hereinafter described to give reasonably effective control of operations herein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the Area subject to this Agreement under the terms, conditions and limitations herein set forth;

NOW THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this agreement their respective interests in the below-defined Unit Area, and agree severally among themselves as follows:

ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid, pertinent regulations, including operating and unit plan regulations heretofore issued thereunder, or valid, pertinent and reasonable regulations hereafter issued thereunder, are accepted and made a part of this Agreement as to Federal leads, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

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2. UNIT AREA. The area specified on the plat attached hereto marked Exhibit "A" is hereby designated and recognized as constituting the Unit Area, containing 760 acres, more or less.

Exhibit "A" shows, in addition to the boundary of the Unit Area, the boundaries and identity of tracts and leases in said Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the Unit Operator the acreage, percentage and kind of ownership of oil interests in all land in the Unit Area. Exhibit "C" attached hereto, is a schedule showing the percentage of participation credited to each Tract in the Unit Area based upon a presumed one hundred percent (100%) commitment. (Tract means each parcel of land described as such and given a Tract Number in Exhibit "B".) However, nothing herein or in said schedule or man shall be construed as a representation by any party as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the Unit Area render such revision necessary, or when requested by the Commissioner or by the

Oil and Gas Supervisor, hereinafter referred to as "Supervisor", and not less than six (6) copies of the revised exhibits shall be filed with the Supervisor and at least two copies shall be filed with the Commissioner.

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- 3. EXPANSION OF UNIT AREA. It is recognized that at some time or times in the future it might be desirable and beneficial to expand the Unit Area to include therein additional Tracts of land. The Unit Area may, therefore, with the approval of the Commissioner, and the Director of the United States Geological Survey, hereinafter referred to as "Director", be expanded to include therein any additional Tract or Tracts, whenever such expansion is necessary or advisable to conform with the purposes of this Agreement, and Unit Operator, acting on behalf of the Working Interest Owners collectively, after being duly authorized by them as provided for in the Unit Operating Agreement, has negotiated an agreement or agreements with the owners of such Tract or Tracts fixing the tract participation of each such Tract and committing such owners to this Agreement and to the Unit Operating Agreement. Whenever the Unit Area is enlarged so as to admit additional land qualified for participation, Exhibit "C" shall be revised as set forth in Section 12, Participation and Allocation of Production. Any such expansion shall be effected in the following manner:
 - (a) Unit Operator, on its own motion, after preliminary concurrence by the Director and Commissioner, shall prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reasons therefore, and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice.
 - (b) Said notice shall be delivered to the Supervisor and Commissioner, and copies thereof mailed to the last known

address of each Working Interest Owner, Lessee, and Lessor whose interests are affected, advising that thirty (30) days will be allowed for submission to the Unit Operator of any objections.

- (c) Upon expiration of the thirty (30) day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor and Commissioner evidence of mailing of the notice of expansion and a copy of any objections thereto which have been filed with the Unit Operator, together with an application in sufficient number, for approval of such expansion and with appropriate joinders.
- (d) After due consideration of all pertinent information, the expansion shall, upon approval by the Supervisor and Commissioner become effective as of the date prescribed in the notice thereof.
- 4. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this Agreement as provided in Section 5, Tracts Qualified for Participation, as to the Unitized formation defined immediately below, shall constitute land referred to herein as "Unitized Land" or "land subject to this agreement". All oil, gas, gaseous substances, sulphur contained in gas, condensate, and all associated and constituent liquid or liquefiable hydrocarbons in the Unitized Formation are unitized under the terms of this Agreement and herein is called "Unitized Substances".

"Unitized Formation" is defined as the interval between the top of the Penrose (Queen) formation to a point 100 feet above the top of the Queen formation. The top of the Queen formation and the top of the Penrose (Queen) formation are shown at the depths of 3548' and 3710'; respectively, on the Gamma-Ray-Sonic log run in the Albert Gackle-Sinclair "A" State No. 6 located 660' from the South line and 1980 feet from the West line of Section 23, Township 23 South Range 36 East, N.M.P.M.

objective of this Unit Agreement is to have lands in the Unit Area operated and entitled to participation under the terms hereof, no joinder shall be considered a commitment to this Unit Agreement unless the Tract involved is qualified under this Section. On or after the effective date hereof, the Tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances therefrom shall be those Tracts within the Unit Area more particularly described in Exhibit "B" that are qualified as follows (for the purposes of this section, the record interest shall replace the royalty interest as to Federal Land):

- (a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have signed or ratified this Agreement and the Unit Operating Agreement, and Royalty Owners owning seventy-five percent (75%) or more of the royalty created by the basic leases have signed or ratified this Agreement;
- (b) Each Tract as to which Working interest Owners owning one hundred percent (100%) of the Working Interest have signed or ratified this Agreement and the Unit Operating Agreement, and Royalty Owners owning less than seventy-five percent (75%) of the royalty interests created by the basic leases have signed or ratified this agreement, and as to which (1) all Working Interest Owners in such Tract join in a request for inclusion of such Tract in Unit Participation upon the basis of such commitment status, and further as to which (2) seventy-five percent (75%) or more of the combined voting interests of Working Interest Owners in all Tracts which meet the requirements of Subsection 5(a) vote in favor of the acceptance of such Tract as qualified. For the purpose of this Subsection 5(b), the voting interest of each

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Working Interest Owner shall be equal to the ratio (expressed in percentage) which the total of such Working Interest Owner's percentage participation in all Tracts which qualify under Subsection 5(a), bears to the total percentage participation of all Working Interest Owners in all Tracts which qualify under said Subsection 5(a) as such percentages are shown on Exhibit ''C'';

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have signed or ratified this Agreement and the Unit Operating Agreement, regardless of the percentage of royalty interest therein that is committed hereto, and as to which (1) the Working Interest Owners who operate the Tract and all of the other subscribing Working Interest Owners in such Tract have joined in a request for inclusion of such Tract in Unit participation upon the basis of such commitment status and have tendered and executed and delivered an indemnity agreement, indemnifying and agreeing to hold the owners of the working interests in the other qualified Tracts harmless from and against any and all claims and demands that may be made by the non-subscribing Working Interest Owners in such Tract on account of the inclusion of the same in Unit participation, and further as to which (2) seventy-five percent (75%) or more of the combined voting interests of the Working Interest Owners in all Tracts which meet the requirements of Subsections 5(a) and 5(b) above, vote in favor of the inclusion of such Tract. For the purpose of this Subsection 5(c), the voting interest of each Working Interest Owner shall be equal to the ratio (expressed in percentage) which the total of such Working interest Owner's percentage participation attributed to Tracts which qualify under Subsections 5(a) and 5(b) bears to the total percentage of all Working
Interest Owners attributed to all Tracts which qualify under
Subsections 5(a) and 5(b), as such percentages are set out
in Exhibit "C".

- 6. UNIT OPERATOR. Continental Oil Company is hereby designated as Unit Operator, and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the development and production of Unitized Substances as herein provided.

 Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interest in Unitized Substances, and the term "Working Interest Owner" when used herein shall include or refer to Unit Operator as the owner of a Working Interest when such an interest is owned by it.
- 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate that Operator's rights as such for a period of six (6) months after notice of intention to resign has been served by Unit Operator on all Working Interest Owners, the Director and the Commissioner, and until all wells are placed in a satisfactory condition for suspension or abandonment whichever is required by the Supervisor, or the Commission, unless a new Unit Operator shall have been selected and accepted and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

The resignation of Unit Operator shall not release the Unit Operator from any liability for default by it hereunder occurring prior to the effective date of its resignation.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by an affirmative vote of the Working Interest Owners of at least

ninety percent (90%) of the voting interest remaining after excluding the voting interest of the Unit Operator. Such removal shall be effective upon notice thereof to the Director and the Commissioner. In all such instances of resignation or removal, until a successor Unit Operator is selected and accepted as hereinafter provided, the Working Interest Owners shall be jointly responsible for performance of the duties of Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a common agent to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its rights, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, materials and appurtenances used in conducting the Unit operations and owned by the Working Interest Owners to the new duly qualified successor Unit Operator or to the owners thereof if no such new Unit Operator is elected, to be used for the purpose of conducting Unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by Working Interest Owners, a successor Unit Operator shall be selected by Working Interest Owners voting according to their respective Tract participation in all unitized land by a majority vote; provided, that, if a majority but less than 75 percent of the Working Interests qualified to vote are owned by one party to this agreement, a concurring vote of one or more additional Working Interest Owners shall be required to select a

new Operator. Such selection shall not become effective until:

- (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator; and
- (b) the selection shall have been approved by the Supervisor and the Commissioner.

If no successor Unit Operator is selected and qualified as herein provided, the Director or Commissioner at their election may declare this Unit Agreement terminated.

9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT.

If the Unit Operator is not the sole owner of Working Interest, costs and expenses incurred by Unit Operator in conducting Unit operations hereunder shall be paid and apportioned among and borne by the owners of Working Interests, all in accordance with the agreement or agreements, whether one or more, separately or collectively, entered into by and between the Unit Operator and the owners of Working Interests.

Any agreement or agreements, whether one or more, entered into between the Working Interest Owners and the Unit Operator as provided in this section are herein referred to as the "Unit Operating Agreement".

Such Unit Operating Agreement shall also set forth such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Unit Agreement, and in case of any inconsistency or conflict between the Unit Agreement and the Unit Operating Agreement, this Unit Agreement shall prevail. Three (3) true copies of any Unit Operating Agreement executed pursuant to this section shall be filed with the Supervisor prior to approval of this Unit Agreement, and thereafter promptly after any revision or amendment.

10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as

otherwise specifically provided herein, the exclusive right, privilege, and duty of exercising any and all rights of the parties hereto, including surface rights, which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator upon his request and, together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

11. PLAN OF OPERATION. It is recognized and agreed by the parties hereto that the Unit Area is developed and productive, and only such drilling as is incidental to a secondary recovery or pressure maintenance program is contemplated.

Inasmuch as the primary purpose of this Unit Agreement is to permit the institution and consummation of a secondary recovery or pressure maintenance program for the maximum economic production of Unitized Substances consistent with good engineering and conservation practices, Unit Operator, concurrently with the filing of the Unit Agreement for final approval shall submit to the Supervisor and Commissioner, a plan of operation for the Unitized Land, and upon approval thereof such plan shall constitute the future operating obligations of the Unit Operator under this Unit Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operation;

said plan or plans shall be modified or supplemented when necessary to meet changed conditions, or to protect the interest of all parties to the Unit Agreement. Reasonable diligence shall be exercised in complying with the obligations of any approved plan of operation.

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Unitized Formation any substances for secondary recovery or pressure maintenance purposes in accordance with a plan of operation approved by the Supervisor and Commissioner, including the right to drill and maintain injection wells on the Unitized Land and completed in the Unitized Formation, and to use abandoned well or wells producing from the Unitized Formation for said purpose, and the parties hereto, to the extent of their rights and interests, hereby grant to the Unit Operator the right to use as much of the surface of the land within the Unit Area as may be reasonably necessary for the operation and the development of the Unit Area hereunder. Unit Operator shall have free use of water from the Unitized Land for operations hereunder and for operations on adjacent lands except water from surface owner's and Royalty Owner's fresh water wells, private lakes, ponds or irrigation ditches.

12. PARTICIPATION AND ALLOCATION OF PRODUCTION. On the effective date hereof, the Tract Participation of each Tract shall be based upon the following factors and formula as represented and shown on the tabulation prepared by the Langlie Lynn (Queen) Unit Engineering Committee report (Table No. 5) as revised April 21, 1970.

80% Tract Estimated Ultimate Primary Recovery
Estimated Ultimate Primary Recovery-Unit Area

15% Tract Current Revenue
Current Revenue-Unit Area

5% Tract Current Oil Producing Rate
Current Oil Producing Rate-Unit Area

The figure set forth opposite each Tract in Exhibit "C" represents the Tract Participation to which such Tract is entitled if all said Tracts are committed hereto and qualified as of the effective

date of this Agreement

Promptly after approval of the Unit Agreement, if all Tracts are not qualified hereto, Unit Operator shall revise Exhibit "C" to show all Tracts qualified for participation under this Agreement by setting forth opposite each Tract a revised Tract Participation therefor, which shall be calculated by using the same Tract factors and formulas which were used to arrive at the Tract Participation of each tract as set out in the original Exhibit "C" but applying the same only to those Tracts which are qualified for participation as of the effective date of this Unit Agreement. Said revised Exhibit "C" shall be subject to approval by the Supervisor and Commissioner and shall be effective as of the effective date of this Unit Agreement.

Tracts are subsequently committed hereto because of expansion of the Unit under Section 3, Expansion of Unit Area, under the provisions of Section 30, Subsequent Joinder, or if any Tract is eliminated from the Unit Agreement as provided in Section 29, Loss of Title, the schedule of participation as shown in Exhibit "C" shall be revised by the Unit Operator to show the new Tract Participations of all the then qualified Tracts, and the revised Exhibit "C", upon approval by the Commissioner and by the Supervisor, shall govern the allocation of production from the effective date thereof until a new schedule is so approved. In any such revised Exhibit "C", pursuant to this paragraph, the Tract Participation of the previously qualified Tracts shall remain in the same ratio one to the other.

On the effective date of this Agreement, and thereafter, all Unitized Substances produced hereunder (except any part thereof used in conformity with good operating practices for drilling,

operating, camp and other production or development purposes, for pressure maintenance or secondary recovery operations in accordance with a plan of operation approved by the Supervisor and Commissioner, or unavoidably lost), shall be deemed to be produced from the several Tracts of Unitized Land, and for the purpose of determining any benefits accruing under this Agreement each such Tract shall have allocated to it that percentage of said production equal to its Tract Participation effective hereunder during the respective period such Unitized Substances were produced, as set out in Exhibit "C".

The amount of Unitized Substances allocated to each Tract shall be deemed to be produced from such Tract irrespective of the location of the wells from which the same is produced and regardless of depletion of wells or Tracts. In the absence of a controlling contract or agreement to the contrary, when two or more leases, or part or parts thereof, have been combined into a single Tract, the percentage participation assigned to such Tract shall for all purposes be divided among the separate leases, or part or parts thereof which has been put into such Tract, in proportion to the number of surface acres of the lease, or part or parts thereof contained in such Tract, to the total surface acres contained in said Tract.

United States and all Royalty Owners who, under existing contract, are entitled to take in kind a share of the substances now unitized hereunder produced from any tract, shall hereafter be entitled to the right to take in kind their share of the Unitized Substances allocated to such tract, and Unit Operator shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty interest not taken in kind shall be made by Working interest Owners responsible therefore under existing contracts, laws and regulations on or before the last day of each month for Unitized Substances produced during

the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any royalties due under their leases.

this Agreement is introduced into the Unitized Formation hereunder, for use in repressuring, stimulation of production, or increasing ultimate recovery, which shall be in conformity with a plan first approved by the Supervisor, a like amount of gas less appropriate deduction for loss or depletion from any cause, may be withdrawn from the Unitized Formation, royalty free as to dry gas, but not as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operations or as may otherwise be consented to by the Supervisor and Commission as conforming to good petroleum engineering practice; and provided further, that such right of withdrawal shall terminate on the termination of this Unit Agreement.

other liquid hydrocarbon substances (herein collectively called "LPG's") which were not extracted from gas produced from the Unitized Formation are injected into the Unitized Formation, which shall be in conformity with a plan of operation first approved as provided above, Working Interest Owners shall be entitled to recover, royalty free, part or all of such "LPG's" pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor and Commission.

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all Unitized Substances on the basis of the amounts thereof allocated to unitized Federal land as provided herein at the rates specified in the respective Federal leases, or at such lower rates as may be authorized by law or regulation; provided

that for leases on which the royalty rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though the Unitized Lands were a single consolidated lease.

Royalty due the State of New Mexico shall be computed and paid on the basis of the amounts allocated to Unitized State Land as provided herein at the rate specified in the State Oil and Gas Lease.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents that it is the owner of a Royalty Interest in the Tract or Tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a Tract or Tracts should be lost by title failure or otherwise, in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interest of all parties in the affected Tract or Tracts shall be adjusted accordingly.

leases committed hereto shall be paid by Working Interest Owners responsible therefore under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico. Rental and minimum royalty for lands of the United States subject to this Agreement shall be paid at the rate specified in the respective leases from the United States unless such rental or minimum royalty is waived, suspended or reduced by law or by approval of the Secretary of the Interior of the United States hereinafter referred to as "Secretary", or his duly authorized

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15. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to State or Federal law or regulation.

and adequate measures to prevent drainage of Unitized Substances from Unitized Land by wells on land not subject to this Agreement or, with prior consent of the Director pursuant to applicable regulations, pay a fair and reasonable compensatory royalty as determined by the Supervisor. In the event compensatory royalty is so paid, it shall be treated in the same manner as Unitized Substances.

17. GAUGE OF MERCHANTABLE OIL. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unit Area and associated with the operation of Unitized Land in order to ascertain the amount of merchantable oil above the pipeline connections in such tanks at 7:00 a.m. on the effective date hereof. All such oil shall be and remain the property of the parties entitled thereto the same as if the Unit had not been formed; and such parties shall promptly remove said oil from said tanks. Any such oil not so removed shall be sold by Unit Operator for the account of parties entitled thereto, subject to the payment of all royalties, overriding royalties, production payments, and all other payments under the terms and provisions of the applicable lease, leases, or other contracts. If, as of the effective date hereof, any Tract of Unitized Land is overproduced with respect to the allowable of the wells on such 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.

18. LEASE AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions, and provisions of all leases, subleases, and other contracts relating to exploration, drilling, development, or operation for oil or gas of lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect; and the parties hereto hereby consent that the Secretary shall and by his approval hereof, or by the approval hereof by his duly authorized representative, does hereby establish, alter, change, or revoke the drilling, producing rental, minimum royalty, and royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement. Without limiting the generality of the foregoing, all leases, subleases, and contracts are particularly modified in accordance with the following:

- (a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned Tract subject to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unitized Land, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.
- (b) Drilling and producing operations performed hereunder upon any Tract of Unitized Land will be accepted and deemed to be performed upon and for the benefit of each and every Tract of Unitized Land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

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(c) Suspension of drilling or producing operations on all Unitized Land pursuant to direction or consent of the Secretary or his duly authorized representative shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every Tract of Unitized Land.

- (d) Each lease, sublease or contract relating to the exploration, drilling, development or operation for oil or gas of lands committed to this Agreement which, by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein so that it shall be continued in full force and effect for and during the term of this Agreement.
- (e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any applicable laws, shall continue in force and effect thereafter.
- (f) 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.
- (g) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. It is further provided, however, that notwithstanding any of the provisions of this Agreement to the contrary, such lease shall continue in full force and effect beyond the terms provided therein as to all lands embraced in such lease if oil or gas is, or has heretofore been, discovered in paying quantities on some part of the lands embraced in

such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or, at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the lessee or the Unit Operator is then engaged in bona fide drilling, reworking, or secondary recovery operations on any part of the lands embraced in such lease; then the same, 9 as to all lands embraced therein, shall remain in full force 10 and effect so long as such operations are diligently prosecuted, 11 and, if they result in the production of oil or gas, said lease 12 13 shall continue in full force and effect as to all of the lands embraced therein so long thereafter as oil or gas in paying 14 quantities is being produced from any portion of said lands. 15 (h) The segregation of any Federal lease committed to this 16 Agreement is governed by the following provision in the fourth 17 18 paragraph of Section 17 (j) of the Mineral Leasing Act, as amended by the act of September 2, 1960, (74 Stat. 781-784): 19 "Any (federal) lease heretofore or hereafter committed to any 20 such (unit) plan embracing lands that are in part within and 21 in part outside of the area covered by any such plan shall 22 be segregated into separate leases as to the lands committed 23 24 and the lands not committed as of the effective date of 25 unitization; Provided, however, that any such lease as to the 26 non-unitized portion shall continue in force and effect for 27 the term thereof but for not less than two years from the 28 date of such segregation and so long thereafter as oil or gas is produced in paying quantities." 29

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19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this

Agreement terminates, and any grant, transfer, or conveyance, of

interest in land or leases subject hereto shall be and hereby is

conditioned upon the assumption of all privileges and obligations

hereunder by the grantee, transferee, or other successor in interest.

No assignment or transfer of any Working Interest shall be binding

upon Unit Operator nor shall any transfer of any Royalty Interest or

other interest be binding on the Working Interest Owners responsible

for payment or settlement thereof, until the first day of the calendar

month after Unit Operator or the responsible Working Interest Owner,

as the case may be, is furnished with the original, photostat or

certified copy of the instrument of transfer.

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20. EFFECTIVE DATE. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective as of 7:00 a.m. on the first day of the calendar month next following the approval of this Agreement by the Commission, Commissioner and the Secretary or his duly authorized delegate; and provided further, that if the Unit Agreement is not filed for final approval on or before January 1, 1973, this Agreement shall ipso facto expire on said date (hereinafter called "expiration date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners whose voting interest as provided in Section 4.3.1 of the Unit Operating Agreement aggregate at least sixty percent (60%) and Working Interest Owners whose voting interests as above defined aggregate at least sixty percent (60%) of the Unit Area then committed to this Agreement have voted to extend such expiration date for a period not to exceed six (6) months. If said expiration date is so extended and this Unit Agreement is not filed for approval by the Supervisor on or before said extended expiration date this agreement shall ipso facto expire and thereafter be of no further force or effect.

Unit Operator shall within thirty (30) days after the effective date of this Agreement file for record in the office or offices where a counterpart of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date.

21. TERM. The term of this Agreement shall be for and during the time that Unitized Substances can be produced in quantities sufficient to pay for the cost of producing same from wells on Unitized Land and for as long thereafter as drilling, reworking or other operations are prosecuted on Unitized Land without cessation of more than ninety (90) consecutive days, and so long thereafter as Unitized Substances can be produced as aforesaid, unless sooner terminated by Working Interest Owners, the Commissioner, or by the Director as provided in Section 8, Successor Unit Operator, and Section 22, Termination by Working Interest Owners.

22. TERMINATION BY WORKING INTEREST OWNERS. This Agreement may be terminated at any time by Working Interest Owners owning ninety percent (90%) or more of the participation percentage in the Unitized Land with the approval of the Supervisor and Commissioner. Notice of any such termination shall be given by the Unit Operator to all parties hereto.

Upon termination of this Agreement, the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts.

If not specified otherwise by the leases unitized under this Agreement, basic Royalty Owners hereby grant Working Interest Owners a period of six (6) months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit operations.

Unit Operator shall, within thirty (30) days after the termination of this Agreement has been determined, pursuant to Section 8

and 22 hereof, file for record in the office or offices where a counterpart of this Agreement is recorded, a certificate setting forth the fact of such termination and the date thereof.

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23. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. The Director is hereby vested with authority to alter or modify from time to time in his discretion the quantity and rate of production under this Agreement when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any statewide voluntary conservation or allocation program, which is established, recognized and generally adhered to by the majority of operators in such State, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of prospecting and development and within the limits made or fixed by the Commission, the quantity and rate of production under this Agreement when such alteration or modification is in the interest of attaining the conservation objectives stated in this Agreement and is not in violation of any applicable Federal or State law; provided that no such alteration or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Commissioner and as to any lands of the State of New Mexico or privately owned lands subject to this Agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

Powers in this section vested in the Director and Commissioner shall only be exercised after notice to Unit Operator and opportunity for hearing to be held no less than fifteen (15) days from notice.

24. APPEARANCES. Unit Operator shall, after notice to

other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Department of the interior and to appeal from orders issued under the regulations of said Department or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the interior or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.

- 25. NOTICES. All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given, if given in writing or personally delivered to the party or sent by postpaid registered or certified mail, addressed to such party at the address such party has furnished to the party sending the notice, demand or statement.
- 26. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State of New Mexico, or of the United States, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto except the United States covenants that during the existence of this Agreement, such party shall not resort to any action at law or in equity to partition the Unitized Land or the facilities used in the development or operation thereof and to that extent waives the benefits of all laws authorizing such partition.
- 27. UNAVOIDABLE DELAY. All obligations under this Agreement, except the payment of money, shall be suspended while, but only so long as, the Unit Operator despite the exercise of due care and diligence is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State of municipal law

or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

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- 28. NON-DISCRIMINATION. In connection with the performance of work under this Agreement, the Unit Operator agrees to comply with all the provisions of Section 202(1) to (7) inclusive, of Executive Order 11246, 30 F.R. 12319, which are hereby incorporated by reference in this Agreement.
- 29. LOSS OF TITLE. In the event title to a Tract of Unitized Land shall fail so as to render the Tract inoperable under this Agreement and the true owner cannot be induced to join this Unit Agreement, such Tract shall be regarded automatically as not committed hereto effective as of 7:00 a.m. on the first day of the calendar month in which such title failure is determined, and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided that, as to State and Federal land or leases, no payment of funds due the State of New Mexico or the United States of America shall be withheld, but such funds shall be deposited as directed by the Commissioner or the Supervisor, to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

30. SUBSEQUENT JOINDER. After the effective date of this Agreement, the commitment of any interest in any Tract within the Unit Area shall be upon such equitable terms as may be negotiated by Working

Interest Owners and the owner of such interest. After the effective date hereof, joinder by a Royalty Owner must be consented to in writing by the Working Interest Owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such Royalty Interest. Joinder by any Royalty Owner at any time must be accompanied or preceded by appropriate joinder by the Owner of the corresponding Working Interest in order for the interest to be regarded as effectively committed. Joinder to the Unit Agreement by a Working Interest Owner at any time must be accompanied by appropriate joinder to the Unit Operating Agreement in order for the interest to be regarded as committed to this Unit Agreement. Except as may otherwise herein be provided, subsequent joinders to this Agreement shall be effective as of the first day of the month following the filing with the Supervisor and Commissioner of duly executed counterparts of all or any papers necessary to establish commitment of any Tract to this Agreement unless objection to such joinder is made within sixty (60) days by the Supervisor or Commissioner.

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all. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described Unit Area.

In the event any of the parties hereto own both Working Interests and Royalty interests, as such interests are shown on Exhibit "B", it shall not be necessary for such party to execute this Agreement in both capacities in order to commit both classes of

interest. Execution hereof by any such party in one capacity shall also constitute execution in the other capacity, provided said party also executes the Unit Operating Agreement as a Working Interest Owner.

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- 32. ROYALTY OWNERS TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the Unitized Land; provided, however, that, if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefore by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States, the State of New Mexico, or to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.
- 33. NO PARTNERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this Agreement contained, expressed or implied, nor any operations conducted hereunder, shall create or be deemed to have created a partnership or association between the parties hereto or any of them.
- 34. BORDER AGREEMENTS. Unit Operator, with concurrence of Working Interest Owners having a combined Unit Participation of sixty-five (65%) percent or more, may, subject to approval of the Supervisor, and Commissioner, enter into an agreement or agreements with the Working Interest Owners of adjacent lands with respect to the operations designed to increase ultimate recovery, conserve natural resources and to protect the parties and interest.
- 35. CORRECTION OF ERRORS. It is hereby agreed by all parties to this Agreement that Unit Operator is empowered to correct any mathematical or clerical errors which may exist in the pertinent exhibits

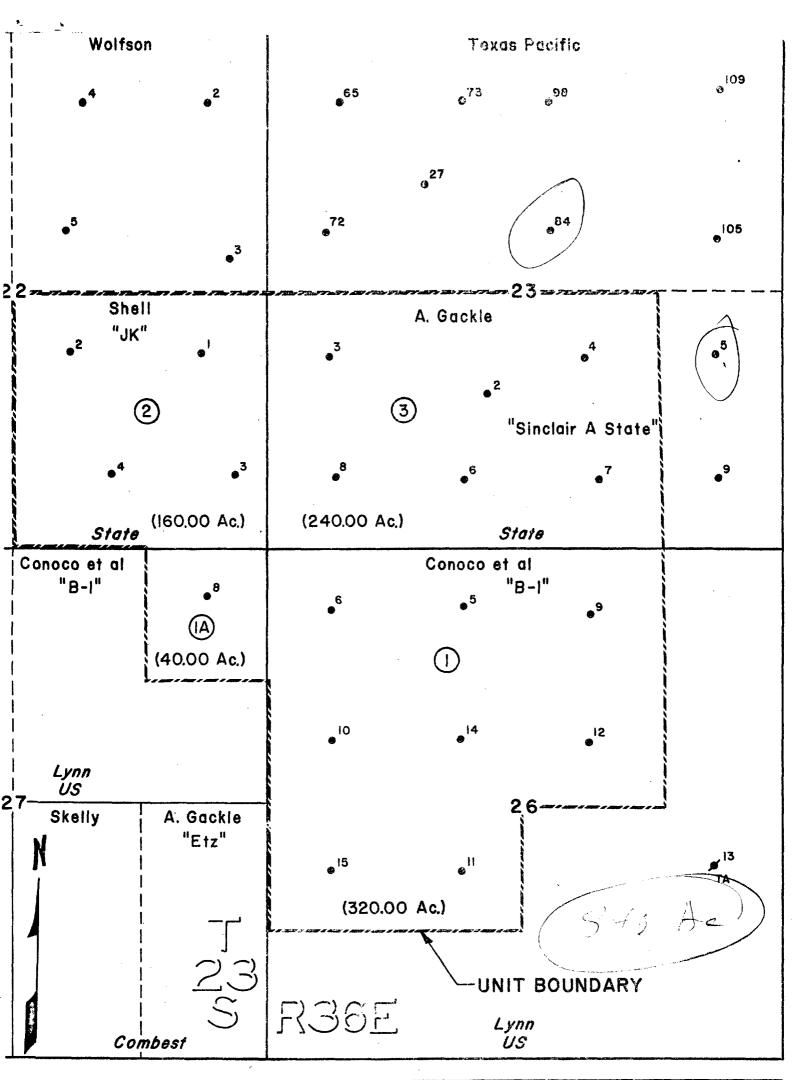
to this Agreement; provided, however, that correction of any error other than mathematical or clerical shall be made by Unit Operator only after first having obtained approval of Working Interest Owners, the Commissioner and the Supervisor. If any such corrections are made, Unit Operator shall file the required number of copies of the corrected pages of this Agreement or of the Exhibits hereto with the Supervisor and Commissioner. Unit Operator shall also provide, in conformance with Section 25, Notices, such corrected pages to the parties hereto.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and have set opposite their respective names the date of execution.

UNIT OPERATOR AND WORKING INTEREST OWNER

Date:	
	ВУ



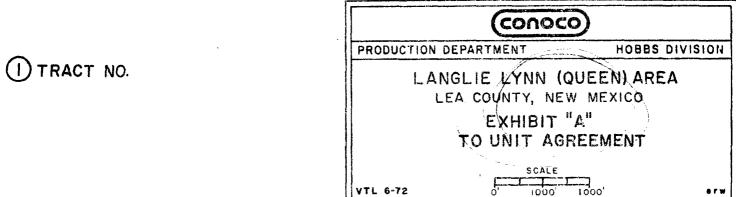


EXHIBIT "B" TO UNIT AGREEMENT FOR LANGLIE LYNN (QUEEN) UNIT, LEA COUNTY, NEW MEXICO

w	2	1 (a)		TRACT NO.
Sec. 23: SW/4, W/2 SE/4	Sec. 22: SE/4	1(a) Sec. 27: NE/4 NE/4	Sec. 26: NW/4, W/2 NE/4, N/2 SW/4	DESCRIPTION OF LAND (ALL IN T-23S, R-36E)
240.00	160.00	40.00	320.00	NO. OF ACRES
в-1506 нвр	B-1167 HBP	LC 030139(b) HBP	LC 030139(b) HBP	SERIAL NUMBER AND EXP. DATE
State of New Mexico - All	State of New Mexico - All	USA - All 12.5%	USA - All (Sched. "D")	BASIC ROYALTY & PERCENTAGE
Atlantic Richfield Co.	Shell Oil Company	J. Roger Lynn Patrick Lynn William R. Lynn Est./Theresa M. Lynn	J. Roger Lynn Patrick Lynn William R. Lynn Est./Theresa M. Lynn	RECORD LESSEE AND PERCENTAGE
		2 2 2 2 5 5 5 5 8 8 8 8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
None	None	None	None	OVERRIDING ROYALTY AND PERCENTAGE
Atlantic Richfield Co. Clay Trusts Margaret B. Clay Management Trust Co. Gackle Oil Co.	Shell Oil Company	Amoco Prod. Co. Atlantic Richfield Co. Chevron Oil Company Continental Oil Co.	Amoco Prod. Co. Atlantic Richfield Co. Chevron Oil Company Continental Oil Co.	WORKING INTEREST OWNER AND PERCENTAGE
.50000 .14167 .14167 .05000	100%	2 2 2 2 5 5 5 5 8 8 8 8	2 2 2 2 5 5 5 5 8 8 8 8	

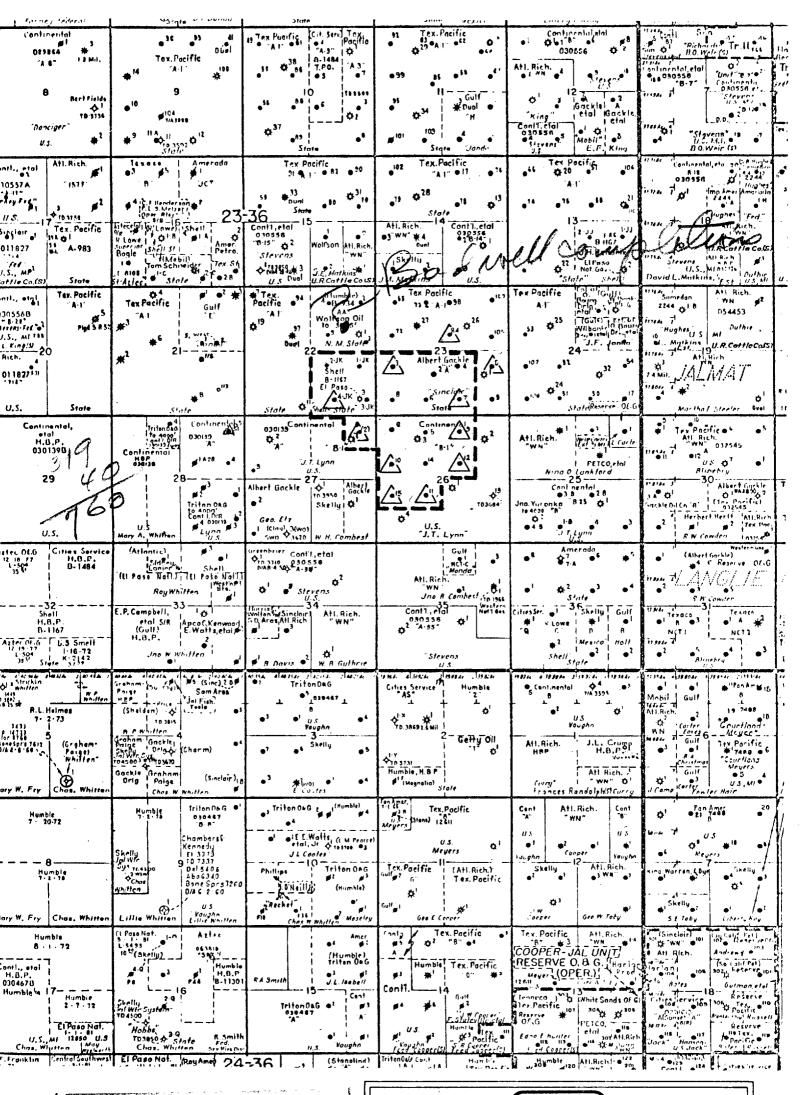
TWO STATE TRACTS CONTAINING 400.00 ACRES, OR 47.37% OF THE UNIT AREA TWO STATE TRACTS CONTAINING 400.00 ACRES, OR 52.63% OF THE UNIT AREA

EXHIBIT "C" TO UNIT AGREEMENT LANGLIE LYNN (QUEEN) UNIT LEA COUNTY, NEW MEXICO

NO.	DESCRIPTION	PARTICIPATION
1	Section 26: NW/4, W/2 NE/4, N/2 SW/4	39.83201
1 (a)	Section 27: NE/4 NE/4	4.40547
2	Section 22: SE/4	19.58633
3	Section 23: SW/4, W/2 SE/4	36. 17619

36 SCHWINDERGER 14001 - 490 COMPANY ALBERT GACKLE Olher Surveys OPERATOR 660' FROM S/L CANGLEE MATTEX FIELD_ LOCATION SEC. 23-235-36E COUNTY_LEA 3400 STATE_ ## NN No. | 1945 |
NN No. | 1945 |
No. | 11 | 74 | 67 |
Reading | 7794 |
No. | 1945 |
Res. ## 1940 |
Res. ## Res. ## 1940 |
Res. ## Res. ## 1940 |
UNITIZED FORMAT CC 30 min 3500 Reproduced By West Jeras Electrical Log Service Dalles 2, Texas (ELSI REFERENCE W2538H TOP COMPLETION RECORD SPUD DATE MapPi COMP DATE CASING RECORD 12/21 @ 3402 36.3 11 = 112 BRIS DIE + 12 REPO PENROSE 11 2 CA BASE リル・トンにも LEGIBLE Velocity (feet per second) == 1,000,000

Note: The interval francis firm (microseconds per foot) INTERVAL TRANSIT TIME SPONTANEOUS POTENTIAL millivolts 7_3R, 3_R, 100 - + GAMMA RAY EXHIBIT NO. 1 - A API UNITS __



BEFORE EXAMINED UTZ
OIL CONSERVATION TOMAR TOT

ED HISTON NO. 2

CASE NO. 4839 - 4840

Submitted by Conoco.

Hearing Data Oct. 4, 1972

PRODUCTION DEPARTMENT

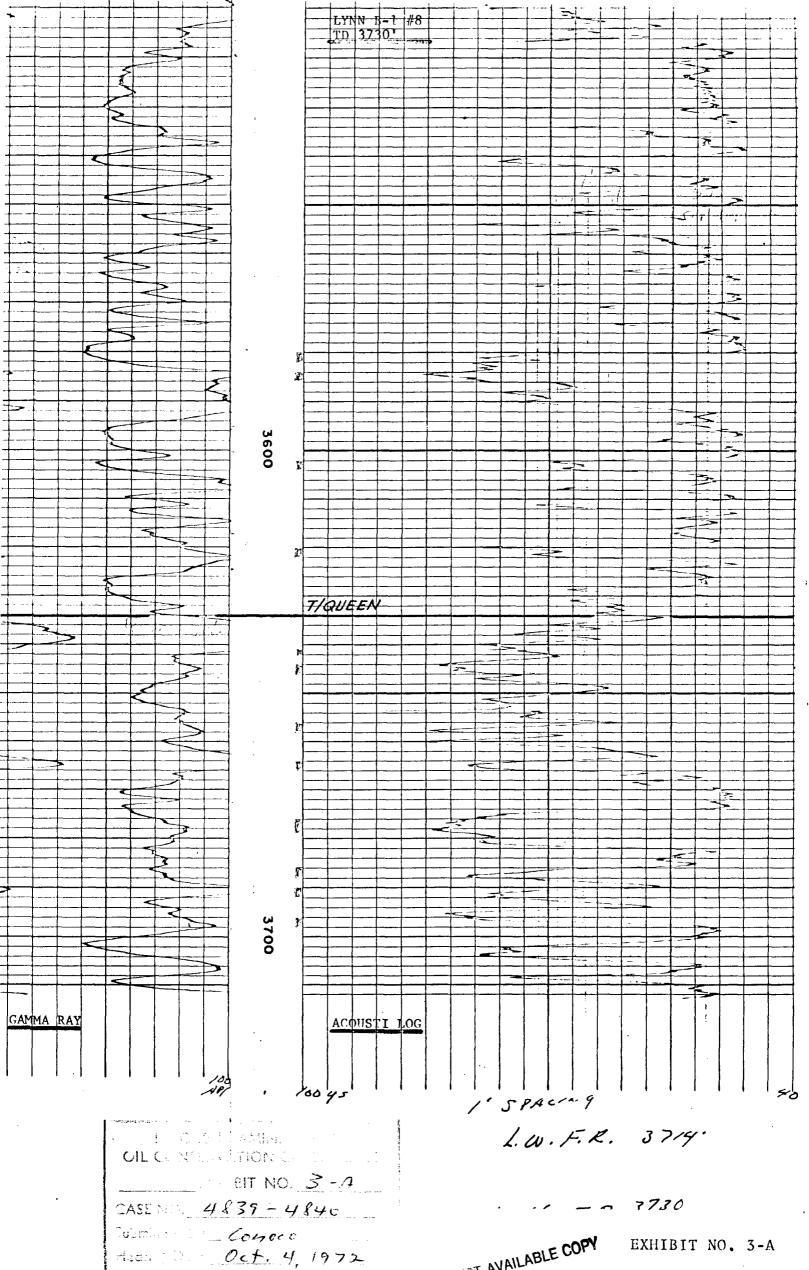
HOBBS DIVISION

LEA COUNTY, NEW MEXICO

PROPOSED UNIT BOUNDARY
PROPOSED INJECTION PATTERN
LANGLIE MATTIX LYNN AREA

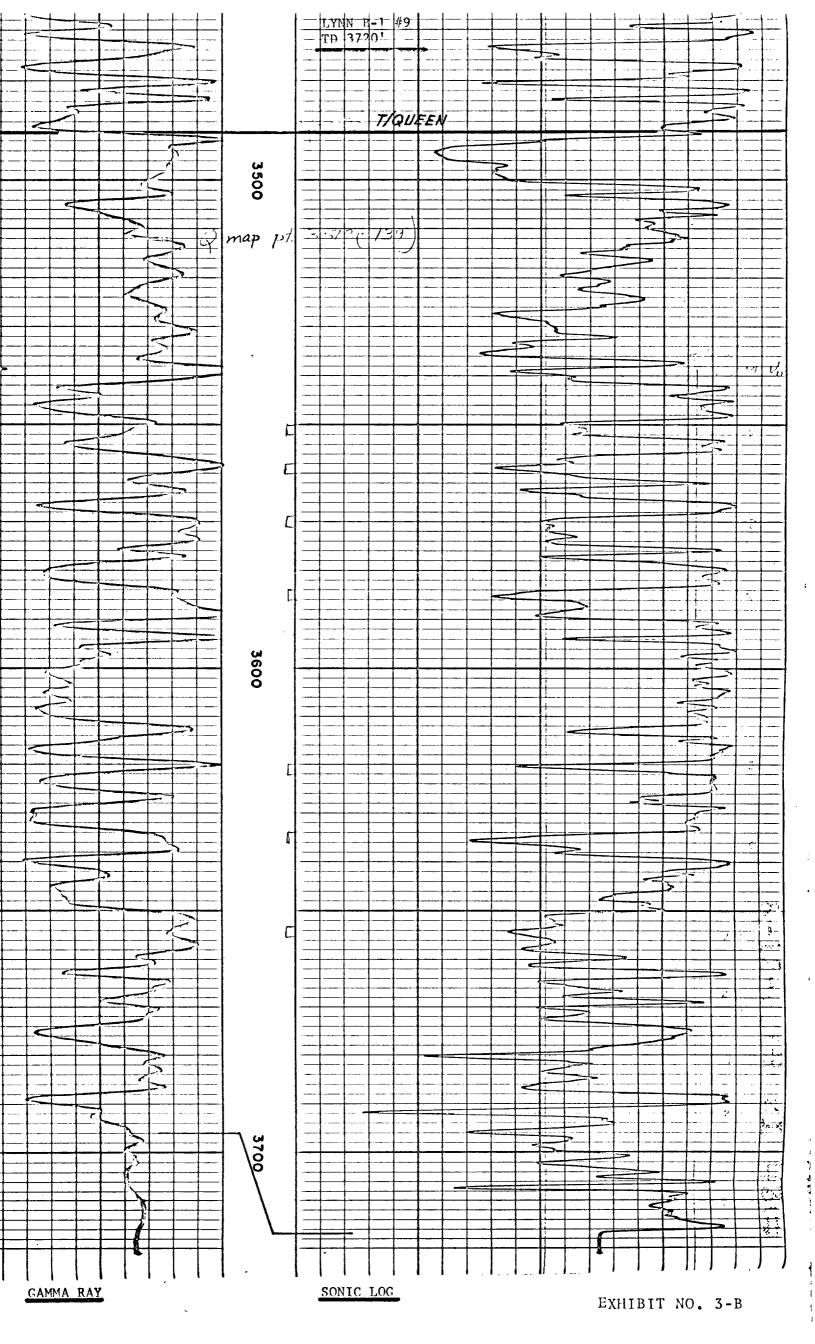
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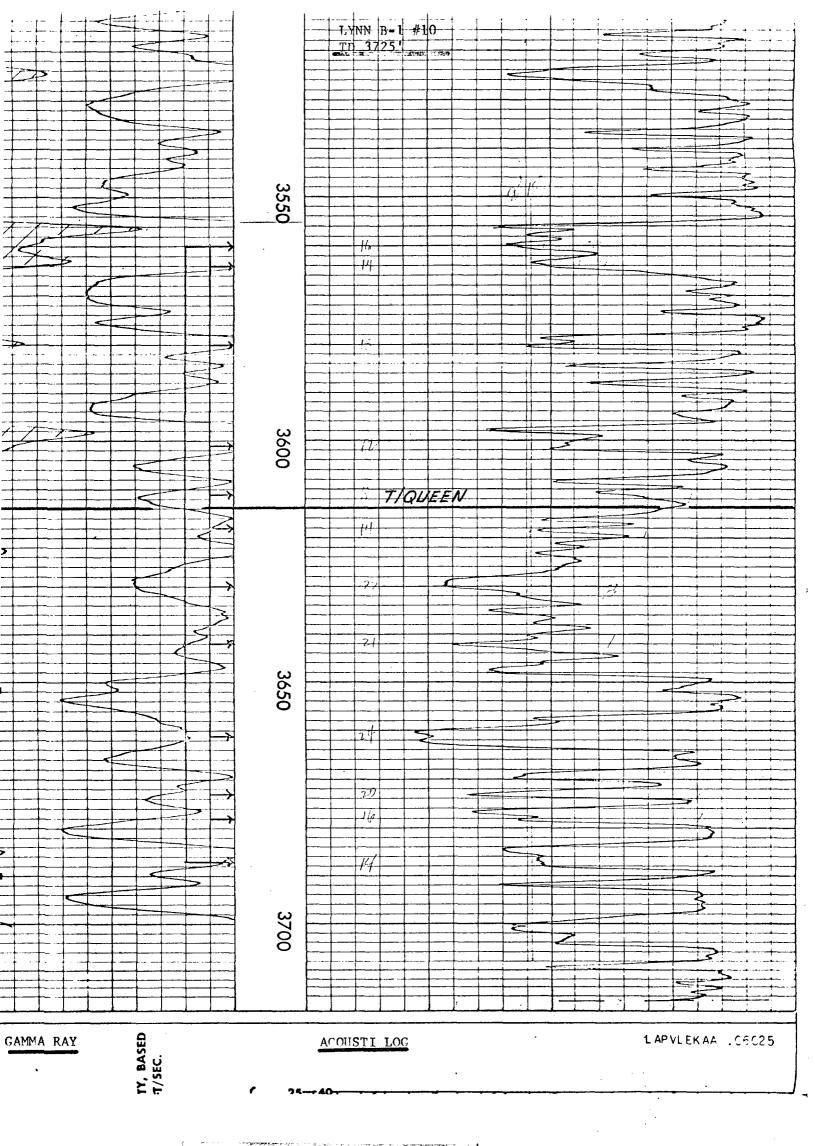
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EXHIBIT NO. 3-A



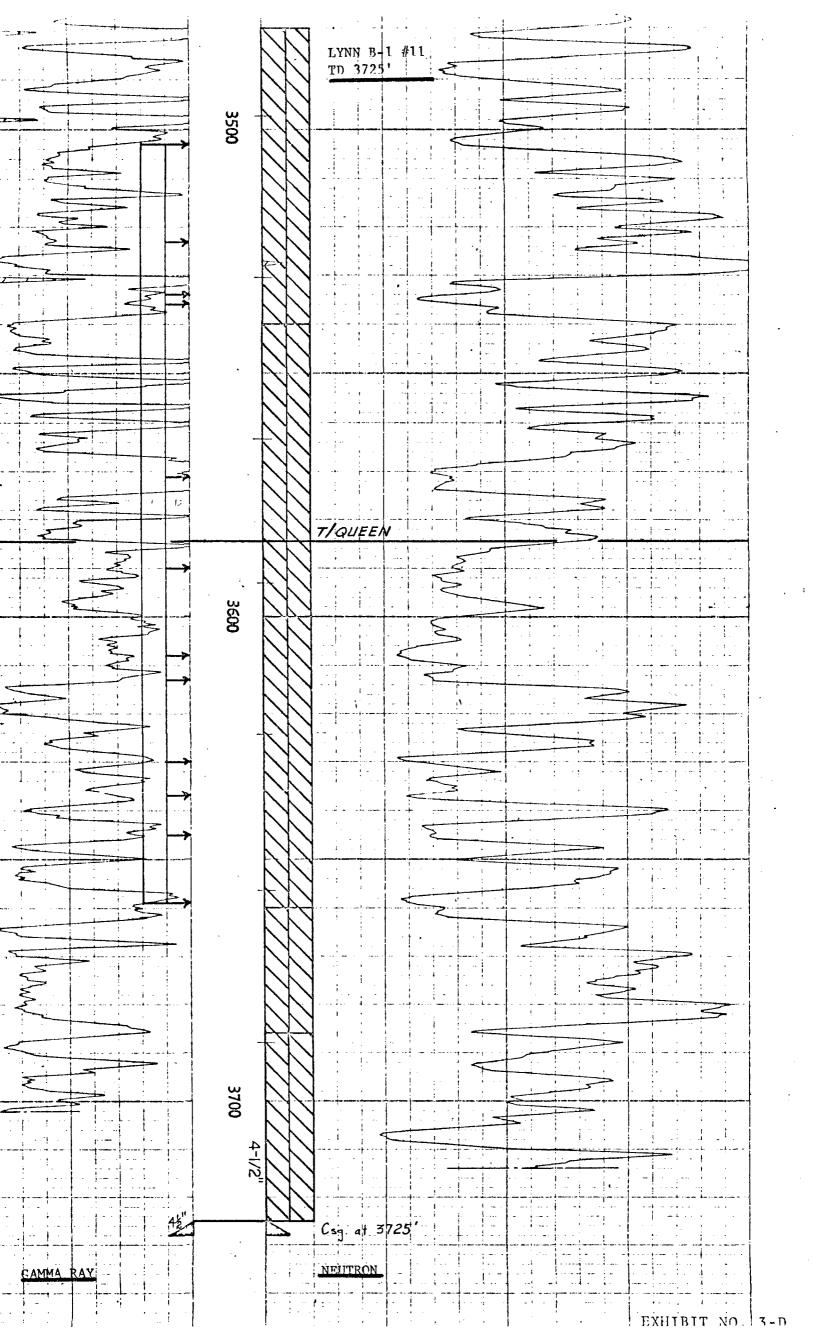


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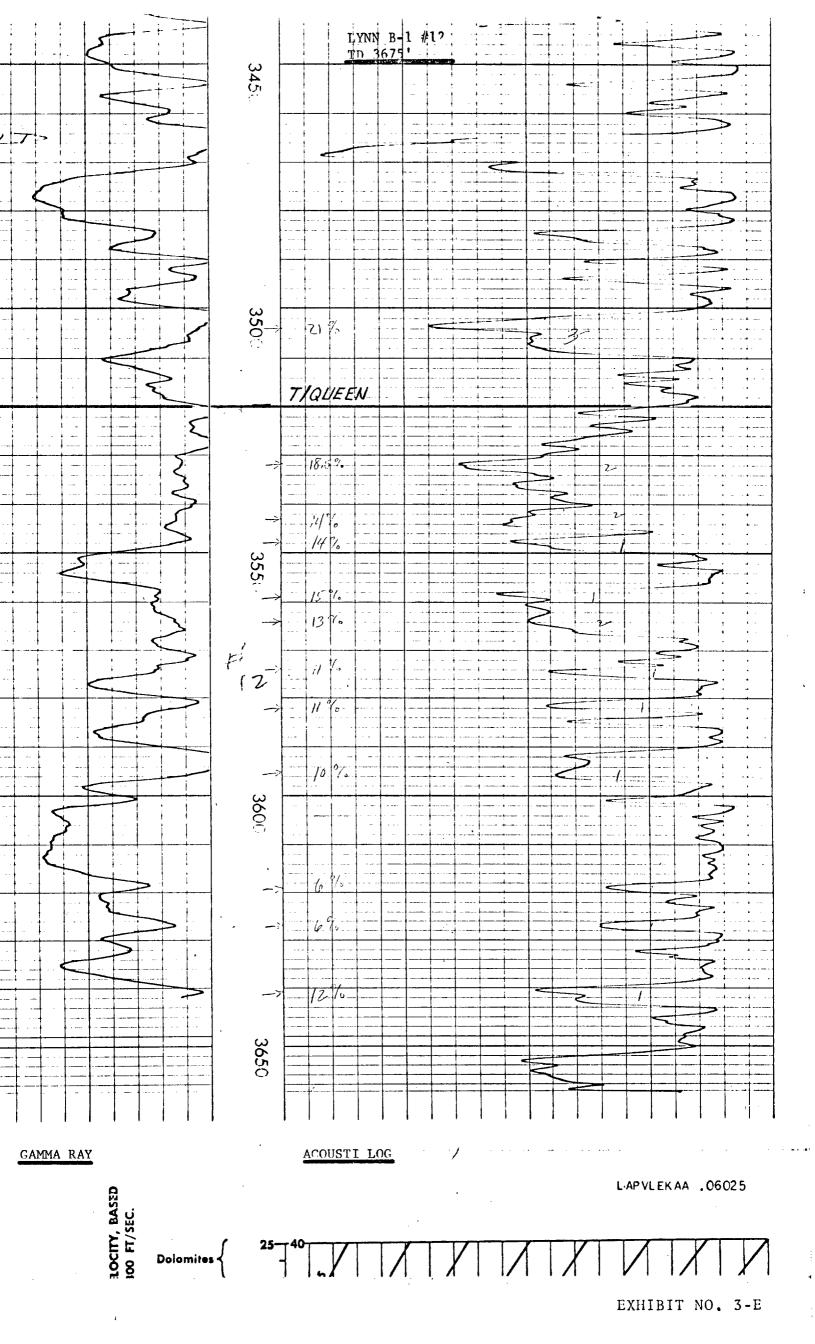
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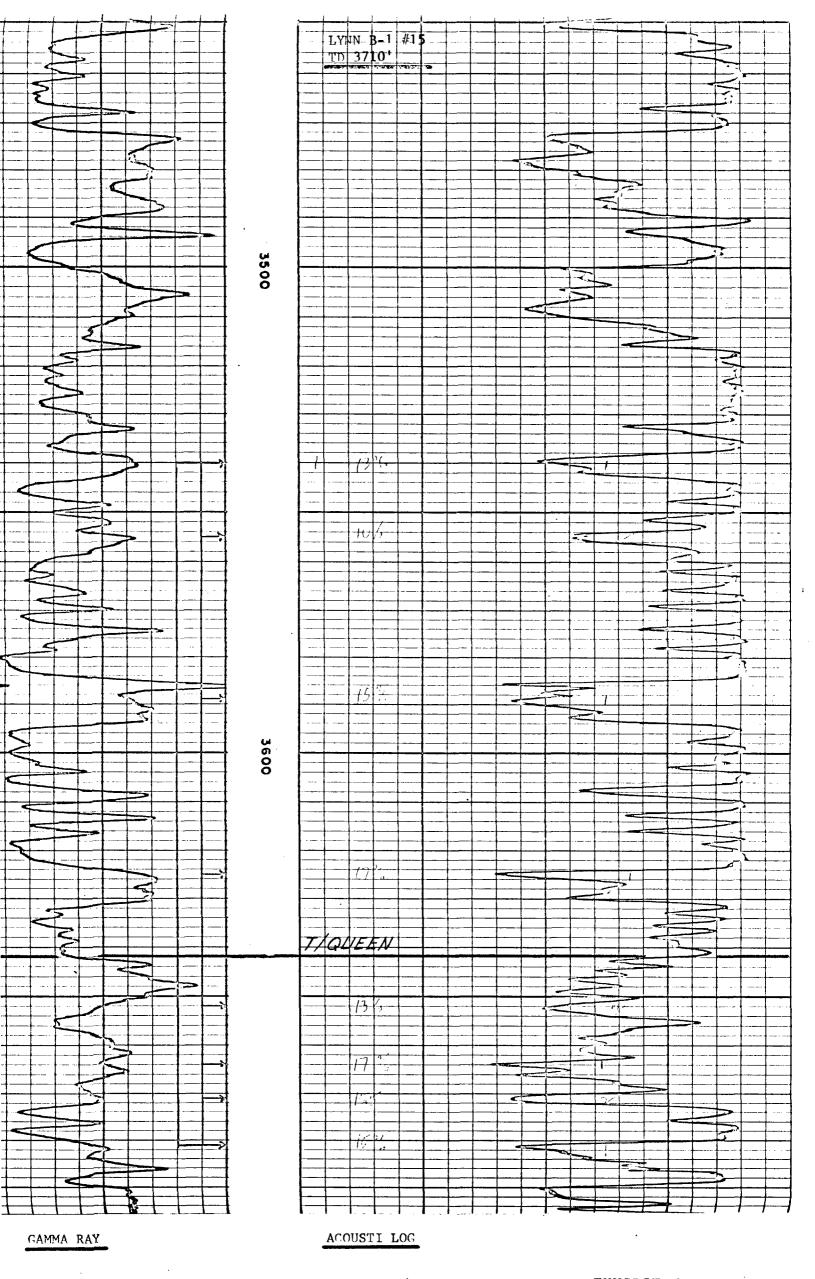
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Oct. 4, 1972



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GACKLE SINCLAIR STATE #3

BEFORE EN MAIN DEZ
OIL CONSERVA THE MO. 3-6

EXTERNO. \$839-\$840

Formitted by Conoccu

Incoming Data Oct. 4, 1972

EXHIBIT NO. 3-G

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BEFORE E. A. ST. CONSERVATION OF THE CASE NO. 4839 - 4840

Submitted by Conoce includes Due Oct. 4, 1972

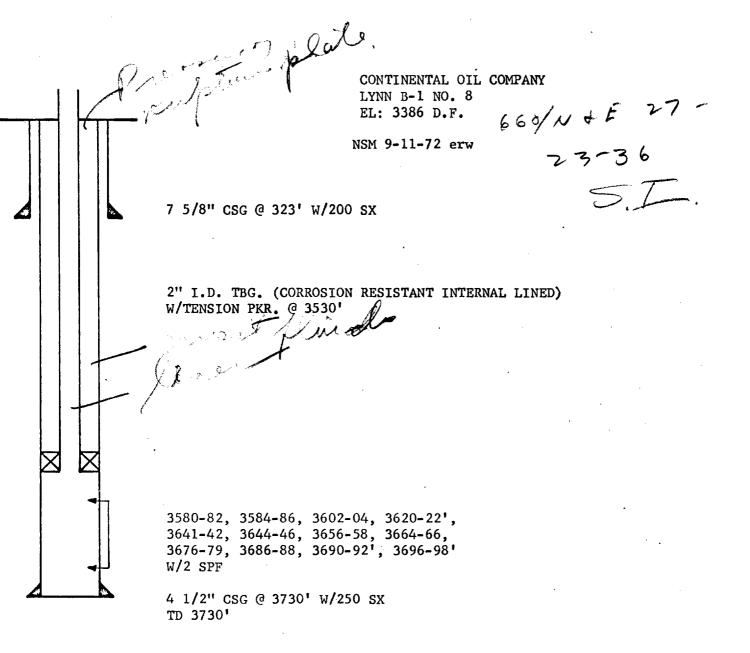
EXHIBIT NO. 3-H

Shell Oil Company STATE JK NO. 4
TD 3800'

10. 4839-4840 Head Doct 4, 1972

CASE NO. _______Submitted by ______

EXHIBIT NO. 3-I



4839-4840 Conoco Oct. 4, 1972

NO REMEDIAL WORK DONE

CONTINENTAL OIL COMPANY
LYNN B-1 NO. 9
EL: 3374' DF 660/N/950/L-26

NSM 9-11-72 erw

7 5/8" CSG @ 302' W/200 SX

2" I.D. TBG. (CORROSION RESISTANT INTERNAL LINED) W/TENSION PKR @ 3500'

3550-52', 3558-60', 3569-71', 3584-86', 3620-22', 3634'-36', 3653-55' W/1 SPF

4 1/2" CSG. @ 3720' W/250 SX T.D. 3720'

NO REMEDIAL WORK DONE.

4839-4840 Concro Oct. 4,1972

CONTINENTAL OIL COMPANY
LYNN B-1 NO. 10
EL: 3377' K.B.

NSM 9-11-72 erw

7 5/8" CSG @ 300' W/150 SX.

2" I.D. TBG. (CORROSION RESISTANT INTERNAL LINED) W/TENSION PKR. @ 3510'

3560, 3564, 3580, 3601, 3611, 3618, 3630, 3642, 3661, 3673, 3678, 3687' W/1 SPF

4 1/2" CSG. @ 3725' W/120 SX TD 3725'

4839 4840 Conoco Oct. 4, 1972

CONTINENTAL OIL COMPANY
LYNN B-1 No. 11 /980/54 W. 76
EL: 3366' K.B.

NSM 9-11-72 erw

7 5/8" CSG @ 315' W/250 SX

2" I.D. TBG (CORROSION RESISTANT INTERNAL LINED W/TENSION PKR @ 3450'

3503, 3523, 3534, 3536, 3571, 3590, 3608, 3613, 3630, 3637, 3645, 3659 w/1 SPF

4 1/2" CSG @ 3725' W/225 TD 3725'

CIL CONS - 1 100 AMA

E 1817 NO. 4-D

ASENO. \$839-\$840

ULTRIBLE & CONOCO

Hearing Dus Oct. 4, 1972

CONTINENTAL OIL COMPANY

LYNN B-1 NO. 12 EL: 3355 K.B.

NSM 9-11-72 erw

1980/NXE-26

7 5/8" CSG @ 300' W/312 SX.

2" I.D. TBG (CORROSION RESISTANT INTERNAL LINED W/TENSION PKR @ 3450'

3504, 3532, 3543, 3548, 3559, 3564, 3574, 3582, 3595, 3619, 3627, 3641, w/l JSPF

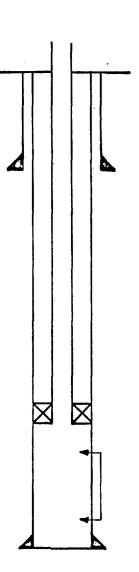
4 1/2" CSG @ 3675' W/200 SX T.D. 3675'

111 CO 31 NO. 4-15

ASENO 4839-4840

Solution Conoco

Meaning Day Oct. 4, 1972



CONTINENTAL OIL COMPANY

LYNN B-1 NO. 15 EL: 3372' K.B 19805/660/w 26

NSM 9-11-72 erw

7 5/8" CSG. @ 312' W/98 SX.

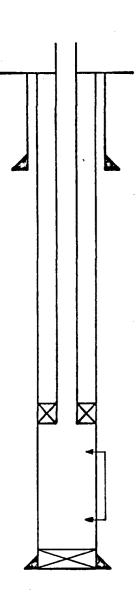
2" I.D. TBG (CORROSION RESISTANT INTERNAL LINED W/TENSION PKR @ 3490'

3540, 3555, 3589, 3625, 3652, 3664, 3671, 3681

4 1/2" CSG @ 3710' W/100 SX. T.D. 3710'

NO REMEDIAL WORK DONE.

BEFORE LIMITED STEELS OIL CONSEAU TO A COMMENT OF E BIT NO. 4-F TASE NO. 4839-4840 o milled st. Gonoco. ... Hoaning Dars Oct. 4, 1972



GACKLE OIL COMPANY Sinclair "A" State No. 3 EL: 3380' D.F.

1988/5,661/W.23

NSM 9-11-72 erw

8 5/8" CSG @ 241' W/200 SX

2" I.D. TBG. (corrosion resistent internal lined) W/TENSION PKR @ 3480'

3536-44', 3571-84', 3602-10', 3613-24', 3648-58, 3660-64', 3668'-72'

PB 3760' 4 1/2" CSG @ 3790' W/1100 SX. TD 3790'

BEFORE
OIL CONST.

EN 317 NO. 4-6

JASE NO. #839 - #840

Jumited by Conoco

Hearing Dan Oct. 4, 1972

GACKLE OIL COMPANY Sinclair "A" State No. 7

EL: 3385' D.F.

NSM 9-11-72 erw

660/5/19812-23

8 5/8" CSG @ 250' W/150 SX.

2" I.D. TBG (CORROSION RESISTANT INTERNAL LINED) W/TENSION PKR @ 3500'

3550, 3555, 3568, 3576, 3581, 3586, 3594, 3601, 3611'

PB 3704'
4 1/2" CSG @ 3728' W/1400 SX
TD 3728'

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

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EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

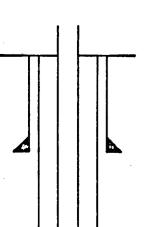
EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14

EXHIBIT NO. 4-14



SHELL OIL COMPANY
STATE "JK" NO. 4
Sec. 22, T-23S, R-36E
Elev: 3400' D.F.
NSM 9-17-72 erw
648/5/650/5-22

7 5/8" CSG. @ 307' W/225 SX.

2" I.D. TBG. (CORROSION RESISTANT INTERNAL LINED) W/TENSION PKR @ 3600'

3659, 3671, 3675, 3684, 3685 3693, 3700, 3704, 3705, 3713, 3715, 3717, 3721, 3722, 3723, 3731, 3735, 3734

SQUEEZED 3770' 3793'
PB 3799'
TD 3800' 4 1/2" CSG @ 3800' W/200 SX.

DEFORMANCE OF THE SUbmitted in Continental 0,7

RESERVOIR DATA & VOLUMETRIC RESERVE CALCULATIONS

	Primary Area (A _p)			760	acres
	Floodable Area (A _W f)			530	acres
	Porosity (Ø)			18.2%	
	Average NEP (h)			6.5	feet
	Water Saturation (S _W)			35.7%	
	Initial Oil Formation Volume	Factor (B _{Oi}))	1.23	
	Waterflood Formation Volume	Factor (B _{owf}))	1.09	
	Sweep Efficiency (S.E.)			70%	
	Estimated Total Primary Prod	uction (N _p)		633,000	во
	initial Oil-in-place (N)	= (7758)(Ø)(I = (7758)(.182 = 3,646,000 I		1/B _{oj}) .643)(1/1.23)	
) ,646,000) (100)	
	Oil Saturation at Start o	f Flood (S _{ow}	$f = (1-N_p/N)$ = (.826)(. = 47.1%	(B _{owf} /B _{oi})(1-S _w)(886)(.643)(100)	100)
	Secondary Oil to be Recov	ered (N _W f) = = =	(7758) (Ø) (h) (7758) (.182) 534,000 BO	(Awf) (S _{owf} -S _{or}) (S (6.5) (530) (.471	.E.)(1/B _{owf}) 300)(.70)(1/1.09)
	Secondary Percent of Prim	$ary = (N_{wf}/N_{f}) = (534,00) = 84.4\%$	₅) (100) 00/633,000) (1	00)	
-	Secondary Percent of Init	ial Oil-in-p	ace = (Nwf/N = (534,0 = 14.6%) (100) 0073,646,000) (100)
The state of the s	OIL CONE VATION COMME BEFORE PROPERTY UTT BIT NO. 5 CASE NO. 4839 - 4840	And a Wilder Control of the Wilder Control o			·
	Susmitted by Continental O Hearing Day Oct. 4, 1972	11.60		EXHIBIT NO. 5	



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 MORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

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1 Hali an Evap. at 103' 105" C			
. Ca CO		94.39	4,720
r carliness as CaCO ₃ (temperary)		23.99	1,200
is leaf a Hardness as CaCO ₃ (permane	nt)	70.40	3,520
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	ELFORE EXAMPLE UTZ		e pro militario de la completa de la completa de la completa de la completa de la completa de la completa de l El completa de la completa del completa de la completa de la completa del completa de la completa del la completa de la completa de la completa de la completa de la completa de la completa de la completa de la completa de la completa de la completa del la completa de la
mg/l= milligrams per Liter	CIL CONSERVATION COMMI	SSION	
me#= milliequivalents per Liter	ERHABIT NO. 6		•
		TXHIBIT	NO. 6
	SENO. 4839 - 4840		
EGIBLE.	Today Dare Oct. 4,197	16	

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. 4840 Order No. R-4417

APPLICATION OF CONTINENTAL OIL COMPANY FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 4, 1972, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this <u>10th</u> day of October, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Continental Oil Company, seeks authority to institute a waterflood project in the Langlie Lynn (Queen) Unit Area, Langlie-Mattix Pool, by the injection of water into the Seven Rivers and Queen formations through nine injection wells in Sections 22, 23, 26 and 27, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

-2-Case No. 4840 Order No. R-4417

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to institute a waterflood project in the Langlie Lynn (Queen) Unit Area, Langlie-Mattix Pool, by the injection of water into the Seven Rivers and Queen formations through the following-described wells in Township 23 South, Range 36 East, NMPM, Lea County, New Mexico:

Well Wame	Unit	Section
Shell Oil Company State "JK" Well No. 4	o	22
Gackle Oil Company Sinclair "A" State Well No. 7	0	23
Gackle Oil Company Sinclair "A" State Well No. 3 Continental Oil Company Lynn B-1	L	23
Well No. 15 Continental Oil Company Lynn B-1	L	26
Well No. 12 Continental Oil Company Lynn B-1	G	26
Well No. 11 Continental Oil Company Lynn B-1	K	26
Well No. 10 Continental Oil Company Lynn B-1	E	26
Well No. 9 Continental Oil Company Lynn B-1	В	26
Well No. 8	A	27

- (2) That the subject waterflood project is hereby designated the Continental Langlie Lynn Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.
- (3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 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

OLL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX, J. Apriljo Hember

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



OIL CONSERVATION COMMISSION

P. O. BOX 2088 - SANTA FE 87501 GOVERNOR BRUCE KING CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

October 10, 1972

	Re: Case No. 4840					
ir. Tom Kellahin	Order No.					
ellahin & Fox ttorneys at Law	Applicant:R-4417					
ost Office Box 1769 anta Fe, New Mexico	Continental Oil Company					
Dear Sir:						
	two copies of the above-referenced tly entered in the subject case.					
	Very truly yours,					
	a Later Co					
•	A. L. PORTER, Jr. Secretary-Director					
ALP/ir						
Copy of order also sen	t to:					
Hobbs OCC						
Hobbs OCC x						